Manufacturers Record Exponent of America

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let

Paltimore, Md.

HOW LONG WILL THIS COUNTRY BE CONTENT?

With strikes tending to paralyze a large part of our industrial activity and with the open disrespect for law and order which is flagrantly apparent, is it true, as some thoughtful men are saying, that unless we take heed the very foundation of our form of government, which we have long revered, will be shaken?

The Philadelphia Public Ledger says a bootlegger king boasts of his immunity from prosecution and arrest and openly claims to have played with United States Senators and cabinet officials themselves. One bootlegger built up an interstate business that amounted to a turnover of \$10,000,000 a year and * * * "this business has reached such proportions that the profits amount to \$300,000,000 annually."

Is not the result of such defiance of law certain to be reflected in contempt of statutes and conventions by labor leaders, strikers, and any and all other elements who find their selfish purposes hampered by legal enactments?

What is to be the outcome? Is weakness in high quarters to be blamed? Are compromise and procrastination the reasons for adding to the ferment when stern measures to uphold the law should have been invoked? Are we to permit the things that we have treasured above everything else, the priceless boon of liberty itself, to be set aside by designing politicians, who think more of votes than they do of the welfare of the country and are we to supinely allow alien elements who care nothing for what Americans treasure as ideals to openly disregard our laws and threaten even government itself?

Isn't it time to call a halt?

The selection of the contractor is the most important duty of an executive responsible for a construction program. It is more than a comparison of bid figures. It is to buy the best engineering and construction service, skill, honesty, speed and economy at the least total cost.

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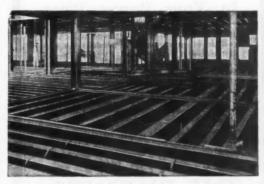
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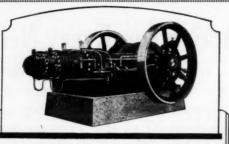
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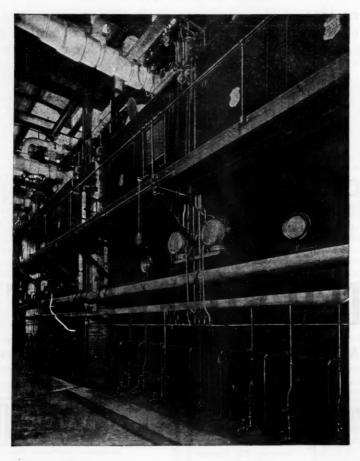
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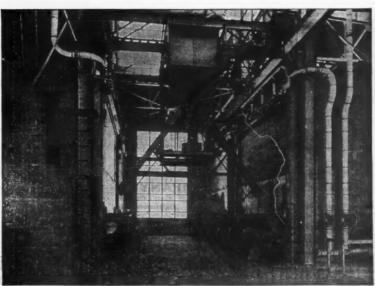
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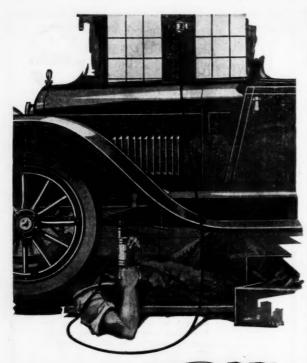
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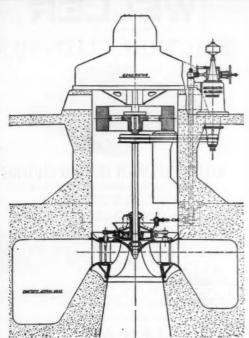
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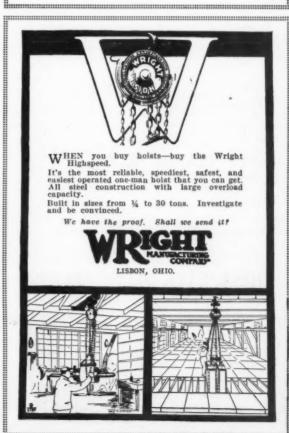
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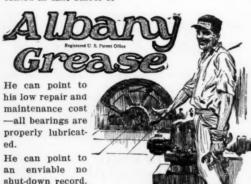
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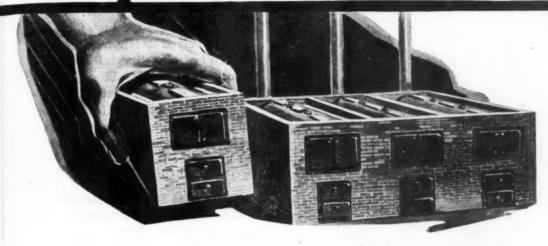
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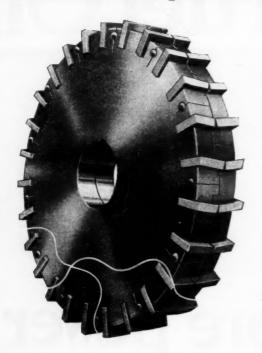


Illustration shows a large interlocking milling cutter, 18-inch diameter, 3-1/8-inch face, with inserted teeth made of Bethlehem Special High Speed Tool Steel. This general purpose high speed steel is recommended for all roughing and finishing tools where it is desired to take heavy cuts at high speeds.

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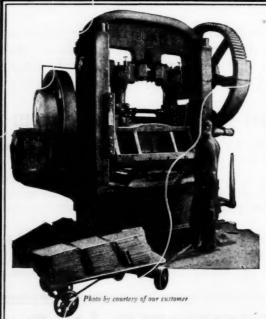
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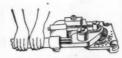
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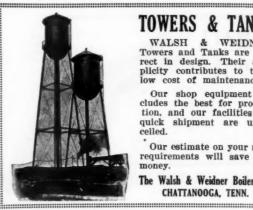


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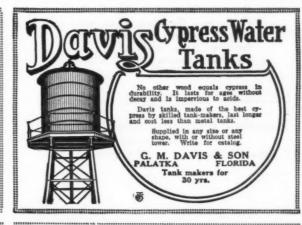
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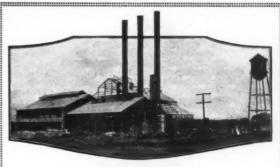
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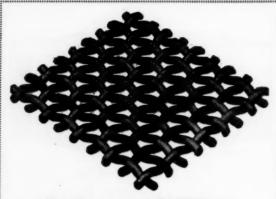
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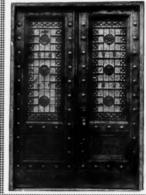
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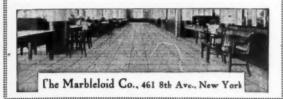
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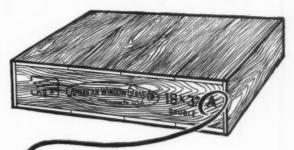






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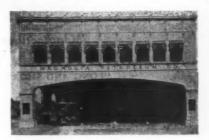
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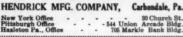
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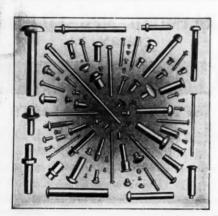
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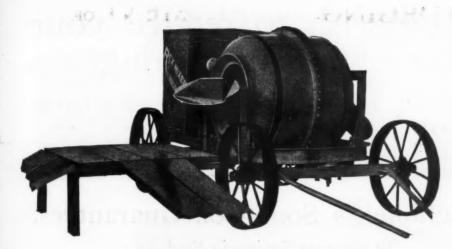
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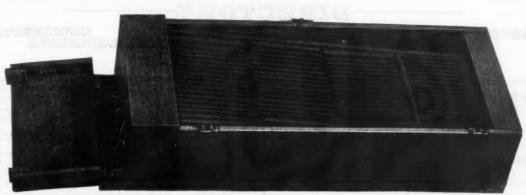
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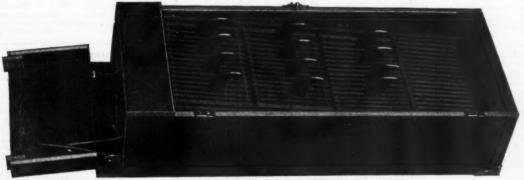
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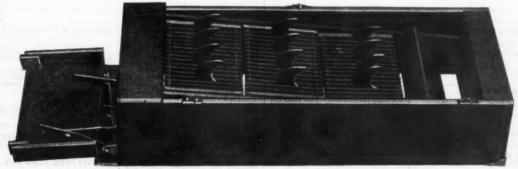
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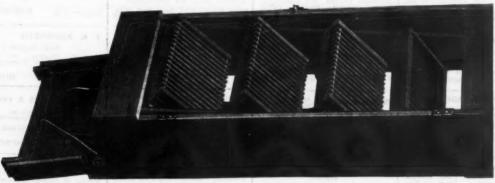
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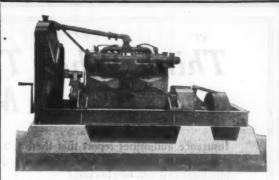
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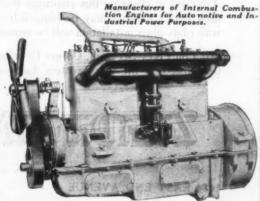
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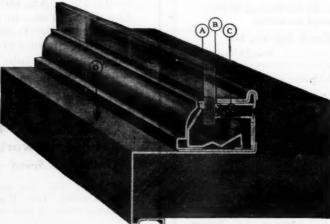
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Volume LXXXII

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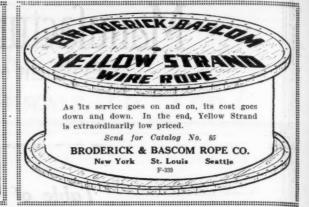
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T is understood that the Federal Reserve Board is giving serious consideration to the establishment of a preferential rediscount rate for agricultural paper. The plan is for a rate of 31/2 per cent.

It is said that under the regime of former Governor Harding an experimental preferential agricultural rate of this sort was tried, but that it failed because the local banks declined to make use of it. The rate is predicated on an agreement that banks taking advantage of it shall not charge an original rate on the same paper of more than 6 per cent. We have heard from Washington during the last two years frequent charges that local banks are usurers and that it was their recalcitrancy, and ice water in the veins of Reserve officials, than bankrupted thousands of good citizens. We believe, nevertheless, that local banks, in agricultural regions, are patriotic enough and long-visioned enough to pass on to their clients the benefits of a preferential rediscount rate.

The rate is spoken of as preferential. In France, for years, special credits inducements have been given farmers, not to favor them but for the national good. And the French peasant, in turn, saved France. We do not believe that a mere reduction of the rediscount rate will satisfy the requirement for an independent agricultural credit system, such as Congress is virtually pledged to establish, but we are confident that such a special rate at this time would be of extraordinary value in furthering the truly orderly marketing of the fall harvests.

I have been driven many times to my knees by the overwhelming conviction that I had nowhere else to go. My own wisdom and that of all about me seemed insufficient for that -Lincoln.

Enforce the Law!

HERE are more than 3000 words in the President's Message to Congress, and the country would have rejoiced had there been but 22-the last 22:

"I AM RESOLVED TO USE ALL THE POWER OF THE GOVERNMENT TO MAINTAIN TRANS-PORTATION AND SUSTAIN THE RIGHT OF MEN TO WORK."

The nation has been plunged into turmoil because the right of men to work has not been sustained. All industry has been harrassed and impeded because transportation has not been maintained.

Lawful authority has been too much engaged in attempting to do things outside its jurisdiction to do vigorously the things within its jurisdiction. Just as many a man has grown rich attending to his own business, just so can an Administration win success by attending to its obvious duties. There would have been no strike problem had the law been enforced, this year and last year and for a decade before. There is. indeed, "a deep current of popular resentment" that the Government has been tolerant of anarchy and near-treason. So deep it is that few political minds have the capacity to plumb it.

It may be doubted if a grant to the Railway Labor Board of authority to enforce its decisions would be a practical benefit. A national wage-fixing board is an economic monstrosity, and there is no power in Congress to make it otherwise. The attempt to standardize railway rates and wages, without regard to the financial condition or earning capacity of the individual roads and without due consideration of the peculiar local conditions obtaining, has simply piled mountains on the highways of transport. What are needed are not more national agreements, but none at all.

The President asks for a national agency "to purchase, sell and distribute coal." Is that "less Government in business?" It is the old Garfield-Hoover-McAdoo idea of supercentralization. Indeed, if the Harding Administration would stop and consider, it would be amazed to discover how far it has gone in the direction of an Industrial Cabinet. A United States coal corporation would mean the ultimate unionization of all coal mines, a mine labor bloc vote cast every four years for the Presidential candidate offering the bigger largess and a general raising of prices and mulcting of the

"There is a state of lawlessness shocking to every conception of American law and order and violating the cherished guarantees of American freedom," says the President. None doubts it, for the newspapers, although half the truth has not been told, have chronicled enough to reveal the situation. But is such lawlessness to be cured by bribery, by buying off the lawless? Is the Government to beg for peace by creating all sorts of palliatives that may entice the strikers or wheedle them into an obedience to authority? We think not.

Rather do the letters we receive from representative men in all parts of the Union indicate that the way to have law is to enforce the law. There have been so many compromises that freedom itself is compromised.

COAL AGREEMENT MERELY A TRUCE.

THERE has been no settlement of the coal strike, and nobody knows it better than does the President of the United States. There has been an arrangement entered into at Cleveland by the miners' union and certain operators. This agreement provides, essentially, that both parties forget the issues which caused the strike and go back to the old conditions. It declares a truce. That happens to be about what President Harding suggested, but with this difference: the President wanted, during the period of the truce, to have a commission actively at work studying the situation which had caused the strike, the findings of which commission both sides were to agree in advance to accept.

Mr. Lewis and the miners have accepted the truce, but they have declined absolutely to have anything to do with arbitration or with any instrumentality which might pronounce a settlement. Mr. Lewis does accept some sort of joint miner-operator body to study conditions, the recommendations of which would have no force or influence.

It is not remarkable, in these circumstances, that President Harding declares to Congress that the public would hope for little, and probably get nothing, from a body of that sort. He wants a Government commission. So far so good, but if that is all there is to it, it will mean nothing. The report of the commission would be of about as much importance as a decree by the Sultan of Sulu.

The recurrent strikes may be profitable to operators who ultimately get huge prices for their product, and for the miners who share therein, but the public is tired of being milked. Moreover, it seems to be quite clear that Mr. Lewis and his union friends are after a national conference to fix wages and destroy the non-union fields. What do they mean by collective bargaining? They think of it not as an instrument of justice, but as a means to monopolize mine labor and put the country at their mercy. The kind of collective bargaining they want is the kind of collective bargaining they can control. They do not believe in collective bargaining for non-union employes.

If a commission to be authorized by Congress should undertake to nationalize union mine labor and destroy free labor, then may the country pray to be delivered from such a commission. There was once a Civil War to abolish involuntary servitude.

But, says the Administration, the situation is already so acute that the Government ought to go now, immediately, into the coal business, buying and selling coal. There is the odor of Hoover in the suggestion. "Let the Government do it," is a popular cry that is leading to state socialism at a pace which sets wise men dizzy. Maybe the employes in the canning factories will be striking next and Congress will be urged to can the fruit and vegetables of the nation. Ordinarily a long record of extravagant failures, amounting in the aggregate to billions, would convince the experimenters that they were on the wrong track. Not so with the advocates of Government participation in business. The more horrible their blunders the more insistent they are to be hoisted again to the taxpayer's back.

We cannot help wondering why Government officials and Congress and the great mass of people cannot see the easy and sensible solution. Maybe it is too obvious. There has not been one day since April first, not a moment, when the firm enforcement of the law would not have guaranteed a national coal supply. There has not been an instant when protection for free men who wanted to work would not have put the mines of the nation into service. But the bloated miners' union, rich with the tribute levied under the check-off system, taking toll of the labor of every miner in the union districts, has not only browbeaten free labor in whole counties and states, but it has intimidated officials and coerced politicians. Indeed, with the business men of the whole nation protesting against pusillanimous surrender to dictatorial labor chiefs, still officials trifle with law enforcement and pender to lawlessness.

If there is a coal commission—and there will be one—we should like to see it offer a solution to the Government. We should like to see that solution put into a few words. We could wish that it would report to Congress and the President that "Coal will be mined in the United States, without interruption, when the freedom of labor is guaranteed."

So long as men must obey a union labor chief or run the risk of being murdered in cold blood, they will be obedient to the power that enforces its decrees rather than to a Government which is too cowardly to protect its own citizens.

VALUE OF UNIFORMITY IN HANDLING RAW MATERIALS.

I N all industries in which dry materials are handled, the question of uniformity is of very great importance. There is hardly an industry in which uniformity is not really a more important aid to efficiency than a much higher average grade of material combined with fluctuations. This is true where physical differences are important, such as in coal, or pit run grade, or crusher run stone or irregularly sized ore, and is equally true where chemical differences are important because the coarse and the fines of any material are likely to differ greatly in chemical composition. These facts, together with the tendency to build silos or large bins for the storing of all sorts of materials, make particularly interesting an article by Charles Catlett in the May issue of "Concrete," on "Segregation, as it Applies to Tanks as Segregating or Mixing Devices."

Mr. Catlett has had a chemist for a number of months carrying on numerous experiments with a view to determining some of the laws bearing on the subject and his full conclusions are set forth in the paper referred to.

He finds that if tanks are filled and drawn in the ordinary way large samples, amounting to say one-fifteenth of the entire tank, will differ from the average of the tank often by more than 30 per cent, based on the average. He also finds that a tank or bin can be so filled and emptied that the extreme variation will be less than 10 per cent and the average variation less than 5 per cent. He deduces the following methods as most important in bringing about these improved results.

As far as possible the delivery of material to a tank shall be distributed and not dropped at one place. Tanks should never be drawn more than nine-tenths empty before refilling. Two tanks should be drawn at once into a common channel, or what is the same thing, a tank should have longitudinal divisions freely feeding into a common outlet. The two tanks, or divisions, should be filled alternately so that a partially emptied tank and a substantially full tank or division are feeding at the same time into the common receptacle.

If these methods are more or less completely followed, the uniformity of the material is enormously increased.

One has only to consider the advantage of furnishing successive cars of run of mine coal, which would be substantially the same, to realize what such a change of practice as above set forth, may mean. th

Only National Well-Being Will Come Through Protective Tariff.

SENATOR McCUMBER, chairman of the Finance Committee of the Senate sums in the bill as it passed the Senate as follows:

"The result of this tariff is that every industry in the country is fairly and justly protected. The duties, however, are not made prohibitive. This will.

"First, insure employment for American labor and the

payment of a living wage.

Second, permit the establishment and continuance of industries vital to the welfare of this nation.

Third, protect alike the producer of raw materials and

the manufacturers

Fourth, permit readjustment of rates without general tariff revision, to meet changing economic conditions.

Fifth, require the ascertainment and submission to Con-

gress of facts affecting competitive conditions."

Speaking for the Democratic party, Senators Simmons of North Carolina and Walsh of Massachusetts, declare that the measure is "one of the most abominable legislative acts of an American Congress," and says, "The toll the American people must pay under the operation of this bill is stupendous. It will reach into the billions. Foodstuffs, clothing, practically all of the very essentials and necessities of life, bear the highest duties ever before levied, and all of this while people are demanding reductions in the cost of living and capital is deflating wages."

"A cheap coat makes a cheap man," said President Harrison, and there is in that sentence a whole philosophy of prosperity. "The toll," say the Democratic Senators, "the American people must pay under the operation of this bill is stupendous." And to whom do they pay any toll? Do they send their cotton to England for a farthing and buy it back for a pound? Do they labor in the fields, and in the fields only, at a dollar the day, without factories, while foreigners spend eight hours by a machine and get four times as much? Not one penny of toll will be exacted from the American people under this bill, but every cent will help to swell the reservoirs of domestic well-being, enhance the resources of the exchequer and keep food in the mouths of the workers.

There is still, even in this modern day, a whole school of thought which subscribes to the doctrine that one can eat his cake and have it too. It may freely be admitted that without protection great volumes of foreign products can flow into America at a price less than cost of domestic production. It cannot be denied that India and Egypt and the tropics can pour foodstuffs into the United States at a cost which would bankrupt the American farmer. But if the things we buy come from abroad, and if we decline to eat our own food because we can buy it cheaper from coolies, into what treasury will our people dip to get the funds wherewith to make purchases even at poverty prices? Costs are of only academic interest to a people who have no means of purchase at any price.

If this tariff bill, as we hope it will, enables American production to avoid the cutthroat competition of civilizations below our standard, and maintains prices at such a level as to afford at least the probability of profit in the operation of farm and mine and factory, thus affording work at good wages to the great masses, then it is a good bill and the Magna Charter of Americanism. If it should mean an increase in the cost of living, (as it will not,) of

all the billions that Senator Walsh claims, then would there be spread about this country, from one end of it to the other, a healing flood of trade and commerce, with wages mounting into sympathy with the cost of living. Dollars would be working, not stagnating. Indeed, it does not require any great amount of intelligence to realize that the Walsh billions would not be tossed into the ocean. If they existed, their habitat would necessarily be in the United States. The tariff bill, paradoxically, would see to that.

The Senate measure has been vastly improved by two fundamental changes in the last hours of debate. We take it as an inspiring sign of a revival of economic statesmanship that the Senate, by a large majority, finally thrust aside the sophistry of the interests which have been insisting on the admission free of non-edible vegetable oils and decided to protect, honestly, for the first time, the peanut and the cotton grower. The emergency tariff measure saved these elements from the ruination which Oriental competition was causing. The price of peanuts and of cottonseed responded, in dollars and cents, to tariff protection against the peanuts of China and the copra of the tropics. Indeed, we do not hesitate to say that the increased price of cottonseed alone. disregarding everything else, will yield to the average farmer who produces ten bales of cotton an exceedingly appreciable profit over and above the total possible amount he may pay on account of protection afforded to commodities he must buy. Not that we agree at all in the theory that protection necessarily and permanently increases prices. The contrary is true and has been proved over and over again in the United States. Tinplate is a shining example. Ultimately, in creating vast industries, protection induces an efficiency in production that brings prices down, not up. Agriculture, however, is in a peculiar state, since the application of labor-saving devices is limited. We look, therefore, to the necessity not for less but for more protection for the farm as the years pass.

The other inspiring action by the Senate was the decision not to sacrifice the great chemical industry to the interests of the German monopoly, but, on the contrary, to establish as national policy the encouragement and upbuilding of that industry under purely American control. There have been times when the shortsightedness of selfishness has neglected to give proper consideration to the essential character of chemistry in the national defence. Secretary of War Weeks, as did President Wilson before him, visioned the reality of this situation. We think an embargo, as suggested by President Wilson, would have been preferable to high tariffs. Nevertheless, the decision finally to adhere to habitual American practice rather than employ a device which for some reason or other has not sounded good to American ears, and to put the tariff barrier so high that, supposedly, it saves the chemical industry from the despicable sort of competition it would otherwise have been subjected to by the German dye trust, is worthy of all commendation. We look to it to save the chemical industry. We look to the chemical industry to grow and prosper, as an arm of the national defence, so that, in case of attack, this nation, instead of being powerless to resist the onslaught of chemical warfare, will be adequately prepared. The action of the Senate is worth, in the national defence, a dozen battleships.

No tariff bill is perfect, and this one has its faults. But

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the greatest of its faults, we think, in the mind of certain metropolitan interests, the opinions of which are reflected in the metropolitan press, is that, for the first time in the history of American tariff making, agriculture is given consideration. That is why there is such a raving against it. That is why some manufacturers who have been playing both ends against the middle do not like it. They are mistaken. Prosperity on the farm will more then make up to them anything they may apparently lose on account of having to buy some of their raw materials also in a protected market.

There are what we may call purely agricultural Senators who have voted steadfastly against the bill and have recorded themselves as against any protection for agriculture. We give most of them credit for sincerity. They have grown old in schools of economic heresy. But we look for them to get a striking lesson in practical economics. We believe that this tariff bill will so manifestly improve the condition of the constituents of many of the opposing Senators that no candidate for office, appealing to those constituents on the ground of opposition to protection, can hope to be elected. Let the operation of the law prove the wisdom of it.

We are doubtful about the flexible rate provision. Experience with commissions in Washington has not generally been beneficial to national well-being. Moreover, the national mind has so long been accustomed to the theory that protection means protection for factories and not for land, that bureaucrats may be inclined to look askance at the agricultural rates. The point of view counts for much. Nevertheless, it is true that world conditions are in a state of flux. Protection in general must conform to competitive conditions. Even ardent protectionists do not want protection that is a work of supererogation. Rates and duties must be nicely balanced. We look for the Presidential office to exercise extreme care in changing rates. Even so, there will be some uncertainty in business, and what may be called economic demagogues will be ceaselessly attempting to change rates, harassing the Tariff Commission and the business of the country.

The immediate thing, however, is to see that a protective tariff bill becomes law. We look for Congress, therefore, to acquit itself of charges of bankuptcy in achievement and put this measure through in the course of the next few weeks. There is no need for a prolonged conference between the houses. Let the measure be sent speedily to the President and let it be law early enough to assure the onrush to prosperity that most experts expect in the fall.

PROHIBITION PAMPHLET A GREAT HELP.

St. Paul, Minn., August 7, 1922.

Editor Manufacturers Record:

Your pamphlet "The Prohibition Question" is certainly the best thing on the subject that I have seen. It is very encouraging and I am sending for two more copies, one of which I intend to send to England, which will eventually find its way into a Scarboro (Mercury) newspaper office, where they have been favorable to the question as they saw it for more than 50 years.

The other I may send to Melbourne, Australia. I wish I had means to more in the way of distributing. I have been in the fight since a 10-year-old boy, more than 60 years ago, and am glad that we are winning. Your pamphlet will be a great help and a source of much encouragement in our continued fight, for we are not through yet.

I am enclosing \$1, and feel you are entitled to the undying gratitude of all loyal citizens and lovers of their fellow men.

Yours for victory,

G. HOOD THOMPSON.

A CURE FOR PESSIMISM.

The Fourth National Bank,

Macon, Ga., August 14.

Editor Manufacturers Record:

Please ship us 50 copies of the Blue Book of Southern Progress,

We are still receiving a good many requests for this book. In fact it may interest you to know one of our leading city pastors recently in his sermon in which his theme was "The Use of the Bible as a Handbook for Christians," mentioned our distribution of copies of the Blue Book and stated that if he were a business man he would no more do without a copy of this Blue Book than he would as a pastor do without a copy of the Bible. Another leading Baptist minister in discussing a recent Sunday school lesson advised every business man who was inclined to be pessimistic to secure a copy of the Blue Book.

C. O. CARPENTER, Manager, New Business Department.

We ourselves have been rather enthusiastic about the value of the Blue Book, as a work of reference and a handy guide to the business man in the South or elsewhere whenever specific facts are desired about this section, but we don't know when we have seen the worth and usefulness of the Blue Book of Southern Progress more aptly characterized.

The Blue Book is a cure for pessimism because no man who will read and study the facts in its pages can fail to be strongly impressed with the present day wealth and achievements of the South and encouraged as to its possibilities of development for the future.

It is the business man's handbook, and no progressive business or professional man should attempt to get along without it, inasmuch as a great deal of the data it contains can be secured nowhere else. As a ready reference work it is as essential as an English dictionary. Small wonder it is highly valued, both in the South and throughout the country.

We greatly appreciate the work of our good friends the bankers and other business and industrial houses as well as the pastors in the South, who are doing so much to spread abroad the thought-provoking facts contained between the covers of the Blue Book, and we invite others to have a share in this work of education and enlightenment that the South may be shown in its proper light before the world.

FACTS THAT SHOULD BE WIDELY READ.

Central of Georgia Railway Company,
Office of President,

Savannah. Ga., August 6.

Editor Manufacturers Record:

I have been so much impressed with the editorial "WILL GOVERNMENT AGAIN SURRENDER TO ORGANIZED LAWLESSNESS," in the RECORD of August 3, that I wish to distribute it among a selected mailing list of farmers, residing in our territory.

I would also like to place in their hands the editorial "WHAT THE STRIKERS ARE DOING," on the cover page of the same issue.

Will you please advise me if you can furnish us with 3000 reprints of these two articles; if so, please forward them as soon as possible and bill us for same. If you cannot do so, we would be glad to have your permission to have them reprinted here.

W. A. WINBURN, President.

[We will co-operate in any way to give the widest publicity to any and all important facts appearing in our columns. We will furnish reprints of articles at a trifling advance above cost, or if preferred it will be entirely satisfactory to us for any matter from the Manufacturers Record to be reprinted at any time, with customary credit.—Editor Manufacturers Record.]

HOW AGRICULTURAL INTERESTS OF FRANCE ARE EXTENDED LONG TIME, LOW INTER-EST CREDITS.

N June 3 Governor Harding, then of the Federal Reserve Bank, wrote to Representative Briggs and took issue with certain statements made by Mr. J. S. Wannamaker, President of the American Cotton Association, relative to the treatment given agriculture by the Bank of France.

Governor Harding declared that "Mr. Wannamaker's statement that the Bank of France discount rates on agricultural paper is limited by law to 5 per cent is incorrect. Agricultural paper rediscounted with the Bank of France is charged the same rate as any other paper. The only preference shown to agricultural paper is that such paper, as a matter of general practice, is renewed at the expiration of three months, the longest period for which the Bank of France discounts

Governor Harding, however, did go on in his letter to explain that preferential treatment was given to the regional agricultural credit societies of France, and when Mr. Wannamaker later pointed out that "nearly all business done by the farmers in France is through co-operative societies of various kinds", he also insisted that Governor Harding admits "that the Government of France lends many millions of francs through the Bank of France to the many co-operative farm 'banks for the benefit of the farmers and agriculture, without the charge of any interest whatever on the part of the Government of France or the Bank of France."

In view of this controversy between Governor Harding and Mr. Wannamaker on a question of fact, the MANUFACTURERS RECORD has caused an inquiry to be made in France as to the real character of the national credit policy as applied to agriculture. The result is extremely interesting.

The Bank of France is not a Government institution. It is the Government's financial agent and acts as its bank of issue, but its relations to and with the Government are by agreement and contract, and at the end of its agreement some other bank, if able to offer better terms to the Government, could replace the Bank of France and become the official bank of issue. This is not at all likely or probable, but it is possible.

The Bank of France has the sole right to issue paper money in France under its agreement with the Government. This agreement is renewed from time to time. At each renewal the Government has insisted on better terms from the bank in return for the privilege. The Bank of France, being in possession of the paper-money-issue monopoly, has heretofore always been able to offer the most attractive terms and to continue its terms as a financial agent of the Government.

At the last expiration of the agreement the Government took opportunity to oblige the bank to grant special terms in respect to agriculture and to make a money grant or gift for the encouragement of agriculture.

Mr. Wannamaker was quite correct in saving that agriculture is respected on the governing board of the bank. He was also correct in regard to the rate of interest for agri-

Loans to French farmers and agricultural interests are made through the Agricultural Credits Bureau ("Le Credit Agricole"). The Credit Agricole is a sub-division of the Ministry of Agriculture. It has reached its present importance by accumulative growth extending over more than 30 years, during which time a series of laws adapted to the progressive evolution of the rural democracy in France and to the needs of the little peasant proprietor have made of it a supply instrument for extending credit, either long or short term, individual or collective.

The operations of the Credit Agricole are effected through a series of regional banks, which in turn have their branches

throughout the communes. These banks are all directed by local farmers and farmers' associations. Their capital can only be formed with the aid of "nominative" shares, which can not draw an interest higher than 6 percent. The members of the Board of Administration are elected by a general assembly of the banks' members, and the administration is

Loans are made possible, however, chiefly because of the advances made to the local banks by the Credit Agricole. For this purpose the Credit Agricole has at its disposal a fund consisting of forty million francs set aside by the State. plus the annual payment made by the Bank of France as a return for its privileges.

The loans made to farmers come under three heads: short, medium and long term loans.

The short term loans are made to permit the farmer to pay current running expenses, such as wages, and for the purchase of fertilizer, seeds, etc. The money can also be used to facilitate the purchase of low-priced agricultural implements. The law does not fix the amount that may be borrowed on short terms. This is done by the local bank. which takes into account the importance of the operation for which the money is asked, the professional capacities of the borrower and the guarantees which he can offer.

The duration of these loans, however, cannot exceed the length of time required for the operation for which the money is to be used-the maximum time being a year.

The rate in this case is not fixed by law. It cannot, nevertheless, be made more than 1 per cent higher than the discount rate of the Bank of France.

The medium term loans are made especially with the object of permitting farmers to engage in work in which there is a delay in the yield-the purchase of animals and material necessary for breeding, expenses entailed in land improvement or the repair of agricultural buildings.

The amount of these loans is also at the discretion of the local branches. Their limit is ten years and they can be repaid in annual instalments.

They can be made to a farmer who is not a proprietor and who merely rents his land, but in this case the date of falling due must be at least three months before the expiration of his lease on the property. This rate also cannot be made more than one per cent higher than the discount rate of the Bank of France. A mortgage can be asked as security, or other guarantees in the shape of bonds, etc.

The long term loans are exclusively made for the encouragement of small property ownership. The borrower is obliged to promise in writing to cultivate the land himself or with the aid of his family. This loan opens the way for the agricultural hand to become a small property owner and tends to steady the labor and keep it settled in a region. It offers to the little proprietor already established the opportunity to extend his domain as his family augments or permits him to construct necessary buildings, barns, stables, etc. One of the chief aims of this loan is to keep the property in the family. In many cases at the death of parents property is sold to strangers because of the necessity of dividing the legacy among the children. The cultivation of the land is better assured if anyone or several of the children desiring to keep the estate find themselves able to borrow on easy terms the wherewithal to keep it going.

These individual loans can be as high as 40,000 francs, though they are not often that high. They have a maximum duration of 25 years, though the average is from 15 to 20 years. They can be repaid by annual instalments. The loan, however, cannot be made to any one whose age will exceed 60 years at the time of the payment of the last instalment.

If the loan is paid off before its expiration a considerable reduction in the interest is given.

The interest on long term loans is only 2 per cent. Should

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the borrower be a returned soldier, a war widow, or a civil victim of the war, the interest is reduced to 1 per cent.

Moreover, for the encouragement of an increased agricultural population, the state gives to this class of borrower a considerable bonus in the shape of interest reduction on his loan, at the birth of each child. This is considerable enough to entirely release the borrower from the payment of interest after the second child. And when there are more than two children the State's bonus is then used for the reduction of the principal of the debt. The borrower can give as security a mortgage taken by the Credit Agricole, or a life insurance policy, even, which he can take out with the State's insurance organiation. If he is unable to obtain the insurance because of his health, he can have someone else insured.

The Credit Agricole itself, that is the central bureau, is administered by a board of thirty members, over which the Minister of Agriculture presides. One-fifth of its members are elected by the Senate and Chamber of Deputies, two-fifths are elected by the regional branches and two fifths are appointed at the recommendation of the Ministers of Agriculture and Finance and are chosen from among the high personalities in the Government.

A member of the governing board of the Credit Agricole is also a member of the governing board of the Bank of France. That is how agriculture is represented in the Bank of France. A government official of the Department of Agriculture is usually the connecting link.

A further activity of the Credit Agricole may be seen in a bill which it is expected will shortly be passed, which authorizes the Credit Agricole to make special and exceptional advances to towns and communes and departments (counties), which will enable them to buy ground that is undeveloped, to cut it into small domains and re-sell it at prices very advantageous with the idea of stimulating a back-to-the-land movement. These domains must be sold to workers or to people without land.

WOULD HOLD ALIENS TO STRICT ACCOUNTABILITY.

M. P. Burt & Company, Industrial Engineers.

Memphis, Tenn., August 12, 1922.

Editor Manufacturers Record:

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Your article on the front cover of August 10, 1922, referring to aliens, furnishes the specifications for the foundation of a long-needed Federal law. But let us go a step further. Why should aliens, not naturalized citizens, unable to read or write our language, be permitted to organize, join or participate in the actions of any secret organization, of any nature, in our country?

When such secret organizations, lodges, or societies are formed or exist in two or more states, and are operating under one general head, they will come under the Federal law. When in only one state they would necessarily have to be governed by a state law.

Furthermore, if a qualified Federal officer, sworn to secrecy except where the action of the society or organization may eventually affect the welfare of the nation, be permitted to enter any or all meetings and report the proceedings and action thereof to the Federal Government, there would be less secrets and less trouble in our land.

The legal structure, built from this expanded foundation, should have a set of jaws with sharp teeth for both the front and back doors,

Yours for a better Government,

M. P. BURT.

BUSINESS PROSPERITY WEST AND NORTH-WEST.

In the west things are humming. I have never seen such hustle and business confidence." So declares Samuel M. Vauclain, president of the Baldwin Locomotive Works, Philadelphia, Pa., who returned home last week after a month's business trip in the West and the Northwest. Continuing Mr. Vauclain says, as quoted by the Public Ledger, "The United States is on the threshold of its most prosperous era. We are doing a lot of building here, but so is the rest of the country. Everywhere in the West buildings are going up. There is plenty of employment and contractors are busy. Building material men are making money. Thousands of homes are being built.

"In the Canadian provinces I visited,—Saskatchewan, British Columbia, Alberta and Manitoba,—things are going wonderfully. Canada hasn't seen such prosperity in five years.

"I saw whole train loads of harvesting machinery in the West. Kansas has the biggest wheat crop she has ever known. Everywhere there is plenty of money. Interest rates are coming down, although they are reasonable at present.

"I found unmistakable evidence of improving trade conditions at virtually every point. The farther west we went the greater the activity. The Atchison, Topeka & Santa Fe Railway last week had the largest volume of gross tonnage in its history. It does not look as though the road is being affected by the strikes. Business is going ahead in spite of labor trouble. The Atchison's experience typifies the situation on the Western roads generally.

"Governor Allen, of Kansas, impressed me mightily. He exudes energy and sound sense. Some of the Eastern pessimists ought to move into his territory. Surplus labor is being absorbed. People seem happy and contented. They are spending money freely, which means, of course, that merchants, big and small, are benefiting.

"People in the Northwest told me that they wanted coal, but said they would freeze before sacrificing a principle. What is wanted is some one to figure out a plan so coal can always be bought at a reasonable price. This is the era of real industrial reconstruction."

These assurances from Mr. Vauclain, who is noted as being one of the most active and aggressive business men of the United States, whose far business vision was shown when he took a corps of company officers and employes across the Atlantic and closed a contract with Rumania to swap fifty big locomotives for petroleum, are of commanding force and significance. If everything is moving along so spiritedly while the strikes are on, what may we not expect when these impediments to progress have been removed?

A MAELSTROM, INDEED.

The Connelly Company.

Marietta, N. C., August 11, 1922.

Editor Manufacturers Record:

I hand you my check \$3.50, and please mail me a copy of the Blue Book of Southern Progress and apply balance on my subscription account.

I have just gotten discharged from bankruptcy court, and have not been getting my mail, so mail me statement to Marietta, N. C.; also the RECORD.

The deflation policy of the Federal Reserve Board wiped me out completely, and I think I knew enough about business in general to handle a situation, except in a maelstrom such as we have had, and in which experience or precedent counted as naught. On top of all this I just lost my house and all personal property by fire, and only about 25 per cent covered by insurance. It seems as if I had deflated just about the limit.

O. C. CONNELLY, Manager.

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SOUTH NOW LEADS IN PROSPERITY.

THE most prosperous section of the United States now is the South. A good crop of cotton is being raised, which will sell for quick cash at a price almost double that of last year.

The condition of the cotton crop, as given by the Government report, is 71.2 per cent, and if the forthcoming crop is estimated at 11,000,000 bales, and conditions continue and prices are maintained (they seem to be going higher) the cotton growing states are going to have about \$861,520,000 cash income from cotton to spend.

The merchants and manufacturers of the West should look to the South, for there is business to be had there, and being very largely an agricultural section, the South buys an enormous proportion of its supplies from other sections.—Journal of Commerce, Chicago.

Conditions in the South are undoubtedly much better than they have been for years, and are ahead of conditions in many places elsewhere. While bitterly scourged by the precipitate deflation inflicted by the Federal Reserve Board, so that bankruptcies, impoverishment, ruin and death-often by suicide-is the black record of a national blunder so colossal as to constitute a crime, as it was a conspiracy, rarely has greater heroism been shown by any people than that with which the Southern farmers met and battled conditions more appalling than any confronted since the war and reconstruction periods. Living without money, through diversification and barter, as many have done; putting in crops without borrowed cash, as has been the case in innumerable instances, and getting down to the hardest kind of hard work, with the most diligent, continuous effort possible, the crops this year, aided by providential weather conditions and favorable market prices in general, will be sufficient in volume and in remunerative returns to lift the farmer out of the slough of helplessness and despair into which he had been thrown. Thus he will be enabled to liquidate more or less of his carryover indebtedness and also he will have at least a partially restored buying power, which is a factor of prime importance in the establishment of widespread prosperity. There is every indication that with the cessation of strike disturbances, the South will leap to a far greater prosperity than it has ever known, and that in the development of its manifold riches in natural resources this activity will continue for years to

The returns from this year's cotton crop, moreover, are almost certain to be a half or possibly two-thirds greater than the figures given by the Journal of Commerce. Cotton is selling today around 22 cents a pound. Should that rate continue on the average throughout the year—and there are many who think it will go higher—it would mean a return of \$110 a bale or \$1,210,000,000 for the 11,000,000 bale crop now predicted, instead of the \$861,520,000 given by the Journal. This is for the lint alone, to which there should be added at least \$120,000,000 for the seed, making a total return, on this basis, of \$1,330,000,000 for the South's cotton crop alone.

A WAGE CONTRAST AND A CONTRAST IN SPIRIT BETWEEN THE FARMER AND THE ORGANIZED WORKMAN.

I N his recent address before the Farm Bureau at Leesburg, Va., Secretary Wallace, of the Department of Agriculture, emphasized with startling clearness the great disparity existing between the wage of the farmer and the wage of the workman especially in organized industries.

"The purchasing power of the wages of the railway employe in 1921," he said, "was 51 per cent greater than in 1913. The purchasing power of the wages of the coal miner in 1921 was 30 per cent greater than in 1913. The purchasing power of the farm hand who works for wages in 1921 was

4 per cent less than in 1913, while the purchasing power of the farmer himself was, on an average, from 25 to 45 per cent less than in 1913."

Moreover, despite the fact that the heaviest burdens of deflation have fallen upon the farmer, he has sought redress only by legal means, because he believes in law and order, in fairness between man and man, and in efficient production and hard work. The farmer could lay down his tools and produce only enough for himself and family or he could refuse to sell his products. But he will not do that because he doesn't do that sort of thing. He hasn't that kind of a mind. He recognizes his obligation to produce food in order that people may eat and live.

Is it any wonder then that the farmer feels like insisting that the railroads be run with some regularity in order that his products may reach their market in good condition, and that coal be mined in quantities sufficient to supply canneries which take his products, and so that he and his family may have some assurance of protection against the cold of winter?

All that the farmer asks, all that any of us ask is that the American sense of fair play again be permitted to operate.

STATE BANKS TAKE PRECEDENCE OVER NA-TIONAL BANKS.

It has remained for a Southern man to adequately present before the public the importance and magnitude of our state banking institutions, which are commonly supposed to occupy second place with respect to our national banks but which as a matter of fact as to deposits bulk 52 per cent more than the national banks and 45 per cent more than they as to total resources, while capital, surplus and undivided profits of the state banks are 30 per cent more.

These impressive and important facts are developed in the annual report of R. N. Sims, of New Orleans, who is secretary-treasurer of the National Association of Supervisors of State Banks, which held its annual convention recently in Detroit. Mr. Sims, who was formerly bank commissioner of Louisiana, and who is now vice president of the Hibernia Bank & Trust Co. of New Orleans, has been compiling and studying data with reference to state banking institutions all over the country for several years, and has now brought his annual work up to a degree of perfection which is comparable in every way with the work of the Comptroller of the Currency with respect to national banking institutions.

Last summer the MANUFACTURERS RECORD editorially gave some striking figures from Mr. Sims' report of 1921, which showed how the state banks more than held their own in comparison with the banks having national charters. The 1922 figures are even more impressive. To begin with, there are 22,302 state banking institutions in the United States proper, (that is, not including our possessions), and the number of national banks is 8197, so that there are 14,105 more state banks than national banks. The capital, surplus and undivided profits of the state banks total \$3,700,677,000 and of the national banks \$2,834,272,000 which shows an excess of 30 per cent in favor of the state banks. Deposits of the state banks total \$23,510,877,000 and of the national banks, \$15,390,438,000 showing 52 per cent excess for the state banks. Total resources of the state banks are \$28.808,-553,000 while national banks have \$19,850,402,000, so there is an excess of 45 per cent in favor of the state banks. Loans and discounts of the state banks total \$14,108,585,000 and of national banks \$11,293,874,000-an excess of 25 per cent for the state banks. Bonds, stocks, other securities etc. of state banks total \$9,414,104,000 and of national banks \$4,118,160,-000, an excess of 128 per cent for the state banks.

The figures for the state banks in Mr. Sims' report were compiled from statements furnished by the heads of state banking departments in the different states of the Union and,

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for the most part are dated March 10, 1922, when a call was made by the Comptroller of the Currency upon the national banks. While some of the figures are given as of other dates, according to the custom of different states in compiling their state bank figures, there is sufficient approximation in the whole for every purpose of comparison. National bank figures are from data compiled by the Comptroller of the Currency.

Commenting upon the showing made by all the banks Mr. Sims says: "The figures given are surprisingly gratifying and reflect the healthy condition of the banking institutions of our country. The total deposits," (state and national being \$38,901,315,000,) "are practically as high as they have ever been, except as shown by the statement of June 30, 1920, when the highest point ever known was reached. In spite of the enormous liquidation in business which followed the unprecedented inflation in the post war period there was a shrinkage of only 5 per cent in the total deposits of all banks between June 30, 1920 and March 10, 1922, and a shrinkage in the state bank deposits during that time of only 1.4 per cent."

The total number of all banks is 30,499, total capital, surplus and undivided profits, \$6,534,949,000 and total resources, \$48,658,955,000.

"Both classes of banks," remarks Mr. Sims, "perform equally useful and necessary functions and I do not make comparisons for the purpose of disparagement, but to emphasize the fact that the two great banking systems are of equal importance in the development and handling of our country's business."

There are other figures contained in the report that add much to the knowledge of state banking institutions. For instance they show that there are now 1274 more state banks than there were three years ago, while in the same period national banks increased only 412. Besides, in 1919 the total capital, surplus and undivided profits of state banks totaled \$2,899,662,000 so that there has been an increase of more than \$800,000,000 in this item, while deposits, which were then a total of \$21,632,822,000, now show an increase of more than \$1,878,000,000. Total resources then were \$25,965,675,000 so that they have increased more than \$2,842,000,000 while other increases have been in proportion.

HIGHLY VALUES BLUE BOOK OF SOUTHERN PROGRESS.

W. H. Tinsley & Son Real Estate

Salem, Va., August 6, 1922.

Editor Manufacturers Record:

I have this day sent out some twenty cards, to our Governor, superintendent of schools, agriculture, and others advising them to secure a copy of your Blue Book of Southern Progress. I would not take \$500 for my copy, if I knew another could not be had.

Let me suggest that you send notice of this valuable book to the school superintendents of every state in these United States. Also put the book on sale at all news stands. Try at first a few copies on agreement to redeem all unsold by a certain time.

I want to send my copy to my son, Maj. A. M. Tinsley, Newcastle, Wyoming; but fear it may either be lost in mails or taken from him, so later will get a copy.

With best wishes &c.,

W. H. TINSLEY.

P. S .- I pass the Manufacturers Record around.

THE QUESTIONS OF A SOLDIER WHO WOULD PREFER THE BATTLE FRONT TO A UNION LABOR CENTER SUCH AS HERRIN.

Kingwood Oil Company,

Okmulgee, Okla.

Editor Manufacturers Record:

If possible and if it does not require too much of your valuable time could you inform me the exact status of the efforts which are being brought to bear to bring the men responsible for the awful Herrin crime before the bar of justice?

I am one of the young and rising generation who saw approximately fifteen months of active service in France, and if the newspaper comments and Associated Press reports of this affair are correct, I would say that that I had rather take my chances in a frontal attack on a machine gun nest than to attempt to assert my right, as a free born American citizen, to accept legitimate employment in any union field that I so desired and particularly in and around Herrin, III.

I personally never have been in any way in favor of union domination or the attitude which they have adopted in this country. My army training causes the feeling of bitter resentment towards unions in general, due to their attitude in this country during the war. It is very fortunate for Samuel Gompers that he lived in the United States of America instead of in France, where "Le Tigre" Clemenceau could have given him a marvelous demonstration of how a man in his position and with his "holier than thou" attitude could be handled for the good of his country and the public in general.

It is my earnest desire to see peace between capital and labor. This can surely never come until we eradicate foreign, radical and Bolshevik leadership from the labor organizations of this country. Do you not think that the true fight is not between capital and labor but between intelligence on the one side and ignorance, aided and abetted by Bolshevik leadership, on the other?

In expressing my keen appreciation of your fearless stand in this matter and hoping that the thinking people of the country will quickly see the light, so that we may again call ourselves free American citizens, I remain, etc.,

RICHARD BATTLE, Chief Engineer.

Among the men murdered at Herrin was one of the superintendents of a large machine plant at York, Penn. He was not a miner, nor a strike-breaker but simply a machinery expert sent out to supervise the erection of machinery. His widow had to go from York to Herrin to try to identify his body.

Illinois officials have apparently made no movement of importance to punish the Illinois rioters but the Illinois Industrial Association has sent a call for mass meetings in every part of the State urging that action be taken. It is to the business men that the country must look for help when officials are apparently cowardly yielding to strikers and rioters.

For the last three years the Manufacturers Record has ceaselessly pointed out the fact that Bolshevistic literature voicing the sentiment, "to hell with all churches, all synagogues, all governments" has been freely distributed in thousands of factories, probably in nearly all, in all sections, throughout the country, and our Government, our educators, our business men and our ministers have been doing little or nothing to counteract this flood of Bolshevistic poison. We have sought during all that time to awaken our people to this menace, but they have been deaf to the warning, and now they stand affrighted, as though this situation could not have been foreseen by any man of intelligence.

During the year ending May 31, says a bulletin from the United States Department of Agriculture, over 1,500,000 bales of cotton were stored in warehouses licensed by the Department under the United States warehouse act.

Is Organized Labor Bigger Than the Government?

THE SUPREME ISSUE BEFORE THE COUNTRY NOW.

By John E. Egerton, President of the National Association of Manufacturers.

In a recent press statement the president of the American Federation of Labor was quoted as saying that there is a conspiracy among the business interests of America to "smash organized labor." The inspiration of this statement was admittedly a telegram that the National Industrial Council sent out to its affiliated bodies with a view of emphasizing the importance of the railroad controversy to the manufacturing interests of the Nation. Being chairman of the National Industrial Council and familiar with the telegram referred to, I am constrained to challenge the implications of the statement.

The overshadowing issue in America to-day is very clear, in spite of the studied efforts to confuse it. It is not whether labor or any other group of citizens has a right to organize nor whether or not citizens have a right to bargain collectively. So far as I know there is not a person of rational mind in America who has ever denied such rights. But the mere right to organize does not even imply the right to operate an organization in an unlawful measure or for unlawful purposes. The president of the American Federation of Labor knows this as well as everybody else. He should know, too, as every intelligent person knows, that the same genius which confers upon any group the right to organize and to bargain collectively confers also upon others the right to deal or not to deal with such an organization.

The supreme issue is whether or not law in this country shall prevail and whether organized labor or any other organized group is to be regarded as bigger than the Government of the United States, and whether the laws and traditions of this country shall be set aside in order to accommodate the lawless tactics of a small group which is obviously trying to impose its arbitrary will upon the Nation. It appears that every court decision and every act of the government that is intended to curb the arrogant disregard of law on the part of certain organized groups of wage earners and every criticism of or resistance to the lawless practices of their members are proclaimed by the president of the American Federation of Labor and his associates as evidences of a "conspiracy to crush organized labor and to deny to the working man the right to organize." Such absurd charges as these are obviously equivalent to a confession that only by lawless methods and defiance of the rights of others do such organizations hope to perpetuate themselves.

I believe that all good citizens endorse the famous declaration of President Roosevelt's Anthracite Coal Commission, which said: "A labor or other organization, whose purpose can only be accomplished by the violation of law and order of society, has no right to exist." The man who works with his hands or who draws his compensation in the form of wages has no more right to be an outlaw than has anybody else. Industrial problems cannot be worked out in an atmosphere of anarchy. Peace purchased at the price of any concession from the eternal principle of right or of law and order cannot endure very long. Unless men can come together with mutual faith and in mutual sincerity of purpose and with mutual respect for and subservience to the laws and institutions of our country there can be no hope of agreements that will survive the necessities of the occasion.

Not only the business interests but all other substantial elements of our citizenship, including the vast majority of organized and unorganized units of labor, are concerned about this matter. There are millions of law-abiding working men who are in this so-called "conspiracy" to smash organized lawlessness in this country. When members of any organization defy constituted authority and shoot down

in cold blood innocent men, women and children, as was recently done at Herrin, Illinois, it is time for the people of this country to rise in their wrath and make such things impossible. That Herrin massacre shocked the sensibilities of every self-respecting man in America who heard of it. Yet, so far as I have been able to learn, the officials of the organization whose members are charged with being responsible for the horrible outrage have never uttered a word of condemnation of the crime, nor one word of sympathy for the families of those working people who were so ruthlessly murdered, nor have they turned a hand to bring the guilty flends to justice or to rid their organization of the odium. In fact, while that unspeakable crime was being planned and perpetrated, the president of the American Federation of Labor was at Cincinnati, in an adjacent state, making an assault upon the Supreme Court of our land for having dared to render a decision contrary to his conception of governmental propriety.

The employers of labor in America will continue to find it impossible to deal in a spirit of amity with the official representatives of an organization that appears to look with complacency upon crime and to tolerate and encourage by silence disrespect for and defiance of law. The issue cannot longer be clouded by demagogic appeals to hate and prejudice and by hypocritical cries of injustice to working people when the unrighteous tactics and practices of some of their leaders are challenged. Exploitation of the wage-earning masses by men who purposely mislead them is as much to be despised and resisted as if indulged in by any unscrupulous employers themselves.

The first task therefore is for all good American citizens of whatever group or class to get together in patriotic purpose and crush out lawlessness, from whatever source, and reenthrone our immortal Constitution as the ruling instrument of our national will. When, and only when that is done, can abiding peace in industry be established on a permanent basis. Love and not hate is the law of life. It is the mother of the only justice that will endure.

More Barges Wanted to Carry Grain.

George F. Powell, president of the St. Louis Merchants Exchange, has, according to a press report from there, applied to the Secretary of War in an effort to require Edward F. Goltra to put in service for carrying grain down the Mississippi River his fleet of four tugs and nineteen barges leased from the Government.

Mr. Powell is reported saying that although the Missis-sippi-Warrior service, which is the Federal-operated barge line between St. Louis and New Orleans, carried 500,000 bushels of export grain during July there are still 1,000,000 bushels remaining in local elevators as a result of the rail-road shopmen's strike.

Motor Car Purchases Show Prosperity.

An interesting evidence of business prosperity is reported by the Philadelphia Ledger, which says that on the night of August 15 a trainload shipment of a popular make of automobile of moderate price arrived in that city on the Pennsylvania Railroad, there being 199 automobiles on the train, which consisted of 52 freight cars. When it arrived there were more than 100 salesmen of these machines present from adjacent and near-by states and many of the automobiles were immediately driven off to other places for delivery to purchasers. This shipment is only the first of several trainloads for which orders have been placed at various factories.

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VICTORY BRIDGE ACROSS APALACHICOLA NOW COMPLETE.

After three years of construction work the "Victory Bridge" over the Apalachicola river at Chattahoochee, Fla., has been completed. It spans the river just a short distance below the junction of the Chattahoochee and Flint rivers where they form the Apalachicola. It was built as a joint undertaking by Gadsden and Jackson counties together with the Federal Government at a cost of approximately \$1,000,000.

The bridge proper consists of seven concrete arch spans

of the river. This is not yet built but it will be similar to the bridge just completed. In the construction of the bridge approximately 1,200,000 pounds of steel and 12,000 cubic yards of concrete were used.

This bridge is not only the connecting link between western and eastern Florida but will serve a very important part in the development of the Old Spanish Trail from Jacksonville to New Orleans and on to San Francisco, which has been

Below— Cofferdam Ready for Concrete.



Te the Right— Completed Span and Hand Rail.





To the Left-Pier Arches Ready for Concrete.

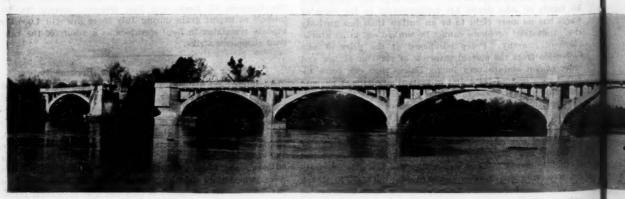


Above—
Partly Completed Piers and
Span.

of 110 feet each, together with a bascule lift span of 100 feet. Three of the piers stand on piling, whereas the remaining six piers were carried to the limestone rock prevailing in the district, this rock occurring at different elevations and dropping rapidly from the east bank to below sea level at the main channel span. The east or Gadsden county approach consists of 19 concrete deck girders 40 feet long, while the approach from the west consists of four similar spans. The entire structure is 2100 feet long, and there is an approach 1600 feet long extending across Pope Lake on the western side

selected as one of the main military roads of the country.

The bridge was designed by James Austin Mortland, bridge engineer of the Florida State Roads Department. The construction of the main bridge was carried out by The Masters & Mullen Construction Co., of 706-9 Electric Bldg., Cleveland, Ohio. The bascule lift which is of the Strauss type was fabricated by the Converse Bridge Co., of Chattanooga, Tenn, and erected by the Pensacola Shipbuilding Co., of Pensacola, Fla. The portion of the approaches now complete were built by the A. Bentley & Sons Co., Jacksonville, Fla.



VICTORY BRIDGE ACROSS APALACHICOLA RIVER NEAR CHATTAHOOCHEE, FLORIDA. CONSISTS OF

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BIG SUMS FOR SOUTHERN WATERS.

\$30,000,000 to Be Expended on Rivers and Harbors of the South for Fiscal Year 1923.

Of the \$35,600,000 allotment of funds appropriated by Congress for river and harbor improvement work during the fiscal year 1923, approximately \$15,000,000 is to be expended in the South. In addition, \$7,500,000 will be available beginning October 1 for continuing work on Dam No. 2 Muscle Shoals; \$6,670,000 was appropriated for flood control on the Mississippi river, and \$330,000 was made available for the operation of the Government barge lines on the Mississippi and Warrior rivers. Allotments for Southern work of this character therefore total close to \$30,000,000, and provide for harbor and river improvements in Maryland, District of Columbia, Virginia, North and South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Arkansas, Tennessee, Kentucky, Missouri.

The total amount of money appropriated for the maintenance and improvement of rivers and harbors was \$42,815,661; about \$7,000,000 remains to be allotted, and this will be held for future emergency expenditures. Many contracts will be awarded this month for work of this character, and it will not be long before hundreds of men are engaged in the various projects, and the work of providing better and bigger ports and waterways will be under way in volume.

Texas rivers and harbors figure prominently in the allotments. Thirty feet of water in the Houston ship channel is assured by a sum of \$750,000. This month the contract will be awarded for dredging a 30 ft. channel from Clinton to Baytown and for straightening the entire waterway. Flour exports will be taken care of by the Manchester wharf now being erected at a cost of \$280,000, and a coal bunkering plant is being built. Many big improvements have been made to the shipping facilities at Houston during the past year. In the vicinity of Galveston big improvements will now be undertaken, \$90,000 being available for the harbor, \$150,000 for the Galveston Channel, and \$100,000 will be expended on the channel from the city to Texas City, while \$20,000 will be the cost of work on the channel to Fort Bolivar.

Port Aransas, Tex., will be developed through a \$200,000 investment in this work. The harbor at Sabine Pass and the Port Arthur Canal will be further improved at a cost of \$150,000, while a similar amount will be used on the Sabine-Neches Canal, including the Sabine River to Orange and Neches River to Beaumont. For Freeport harbor \$50,000 is provided. Cypress Bayou and waterway between Jefferson, Tex. and Shreveport, La., \$60,000 is allotted.

One of the largest amounts appropriated for an individual harbor is \$900,000 for work at Savannah, Ga. Many other improvements ranging in cost from \$1000 to \$20,000 will be made in the state through funds now available. A sum of

\$122,000 will be used in Chattahoochee River work in Georgia and Alabama. Brunswick harbor improvements to cost \$200,000 will also be made.

Mississippi river work, in addition to the \$6,670,000 for flood control, will involve the expenditure of many millions of dollars as provided by the act of June 30. At Southwest Pass, La., \$2,000,000 will be utilized in the work, and at South-Pass Channel, La., \$600,000 will be expended.

Similarly Missouri river work will involve a big cost, the section between the Ohio and Missouri rivers being allotted \$915,000, while for work between Minneapolis and the Missouri river, \$1,000,000 is available. From Kansas City to the mouth of the Missouri river \$100,000 will be expended.

In Tennessee and Kentucky \$425,000 is allotted for Cumberland river improvements below Nashville. On the Tennesseeriver below Riverton, Ala., \$160,000 is assured, while from Chattanooga to Riverton, except Browns Island to Florence, \$150,000 will be used, while above Chattanooga \$20,000 is allotted.

Many projects costing from \$2000 to \$50,000 each will now be carried to completion in Louisiana.

In Mississippi \$100,000 is available for the Gulfport harbor and Ship Island Pass, and a fund of \$25,000 will take care-of work at Pascagoula.

Alabama projects with allotments include the following: Alabama river, \$75,000; Mobile harbor, \$300,000; Black Warrior, Warrior and Tombigbee rivers, \$52,000; Tombigbee river from mouth to Demopolis, \$32,700; and Channel between Mobile Bay and Mississippi Sound, \$20,000.

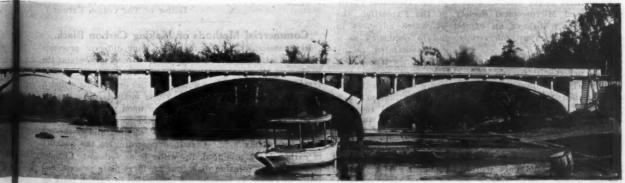
In Florida the biggest single project is the work from Jacksonville to the ocean for which \$450,000 has been allotted. Other projects include: St. Johns river to Lake Harney, \$50,-000; Jacksonville to Palatka, \$30,000; Miami harbor, \$40,000; Key West Harbor, \$50,000; channel from Apalachicola river to St. Andrews Bay, \$47,000; St. Andrews Bay, \$50,000; and numerous smaller projects involving the expenditure of from \$50,000 to \$50,000. Work in Tampa and Hillsboro Bays tocost \$250,000 is included.

For work on the waterway between Beaufort, S. C. and the St. Johns River, Fla. \$55,000 is provided.

The inland waterway from Norfolk, Va. to Beaufort Inlet, N. C., will be further improved by the expenditure of an additional \$240,000. Work at and below Wilmington, N. C. will cost \$200,000, and numerous small projects to cost \$2000 to over \$20,000 are provided for.

In Virginia \$300,000 is available for the Thimble Shoals-Channel, \$300,000 for the harbor at Norfolk, and approximately \$100,000 for other miscellaneous projects. A sum of \$33,000 was allotted for Potomac river work at Washington.

The Baltimore harbor and channel improvements will be augmented by \$300,000. In addition \$2,500,000 was set aside for the inland waterway from Delaware river to the Chesapeake Bay.



SEVEN CONCRETE ARCH SPANS OF 100 FEET AND ONE BASCULE LIFT, STRAUSS TYPE, OF 100 FEET.

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Visiting Chemists to Be Given Cordial Welcome by New York Business Interests.

ATTENDANCE OF 50,000 ANTICIPATED AT EIGHTH NATIONAL EXPOSITION OF CHEMICAL INDUSTRIES, SEPT. 11-16.-TENTATIVE PROGRAM AS COMPLETED TO DATE.

[Special Correspondence Manufacturers Record.]

New York, August 18. 1922.

That the 50,000 or more American chemists and chemical business men, as well as numerous visitors from the chemical industry from other parts of the globe, may be adequately cared for during their stay in New York for the 1922 Chemical Exposition, which will be held throughout the week of September 11 to 16 at the Grand Central Palace, especial care will be taken to extend every courtesy of the city to the visiting scientists. The Board of Trade of New York is expected to work in conjunction with the management of the Eighth National Exposition of Chemical Industries to make the period of the exposition a "chemical week." The New York Hotel Men's Association has indicated its intention of co-operating by making arrangements to house the visitors in the various hotels within walking distance of the Grand Central Palace. The Chemists' Club of New York has already issued its welcome to visiting chemists from out of town, especially to its non-resident members, to make full use of the clubhouse while in New

The program for the Chemical Exposition is gradually being whipped into shape. The meetings of the various scientific and business organizations connected with the chemical industry which will be held in the auditorium of the Grand Central Palace in conjunction with the exposition, have only been arranged as far as the general programs, full detailed announcements being expected within the next fortnight or so. The latest addition to the program which has been definitely scheduled, includes the speakers for the meeting of the Technical Photographic and Microscopical Society and the subjects they will discuss. The following is the list as arranged to date:

"The Photomicroscopy of Paint and Rubber Pigments," by Henry Green of the New Jersey Zinc Company, Palmerton, N. J. "Photomicrography in Pulp and Paper Research Problems," by Miss Eloise Gerry and Dr. E. M. Diemer of the Forest Products Laboratory, Madison, Wis. "Handling of Motion Picture Films," by Dominic S. Mungillo of the Craftsmen's Film Laboratory, New York. "Mechanics of Motion Picture Apparatus," by Clarence W. Gibbs of the Animatograph Company, New York. "The Motion Picture as An Art in Industry," by Alfred B. Hitchins, Director of the Ansco Research Laboratory, Ansco Company, Binghamton, N. Y. "Microscopy in Leather Tanning," by Guido E. Daub of A. F. Gallun Sons Company, Milwaukee, Wis. "Use of the Microscope in Textile Work," by Alfred H. Grimshaw of the Textile School, New Bedford, Mass. "Protozo and Rotifers: Studies in Animal Life," illustrated by motion pictures, by Philip O. Gravelle, South Orange, N. J.

In addition to the meeting session of the Technical Photographic and Microscopical Society at the Exposition, the organization will have an exhibit at which advances in technical photography, microscopy, and in chemistry as a result of these two sciences, will be demonstrated. Many of the problems of the chemical consuming industries, which include practically all the basic industries of the country, particularly regarding the physical nature of raw materials and finished products, have received the attention of a number of members of the society in individual research and can be discussed with the investigators at the exposition.

Of the four hundred and some odd firms which have contracted to date for space to display their products at the 1922 Exposition, not only will the chemical raw materials for the textile, mining, rubber, leather, paint, steel, ceramic, medicine, and other basic industries be shown to the fullest

ability of the American manufacturer, but yet a larger group representing manufacturers of equipment, mixing ma. . chinery, grinding machinery, instruments, gauges, packaging machinery, conveying machinery, and many other similar types, will exhibit their goods. Some of the most novel and up-to-date ideas in fire-fighting equipment will play a prominent part in the exposition. One of the latest developments is a sprinkler system for fires, where the use of water would destroy large quantities of goods, is the so-called carbon dioxide "sprinkler." A fusible plug, instead of releasing water, allows a flood of carbon dioxide gas to pour over the fire, its well-known fire-fighting properties making it unusually effective for this purpose. A system of this type will be on display by one of the carbon dioxide manufacturers.

Practically all space on four floors of the Grand Central Palace has been contracted for to date, remaining space being still available but at a premium.

Deeply Concerned as to What Action Federal Reserve Board May Take.

Scott, Miss., July 25, 1922

Editor Manufacturers Record:

I make bold, as an humble negro editor, in the delta of Mississippi, where we are doing what we can to add to the wealth of the nation, to express to you and your great business magazine the deep appreciation of the editor and the publishing committee of The Cotton Farmer for your editorial mention of our paper in your issue of the 29th

The Manufacturers Record is a great help to me in my editorial work and it enables me to get much light on the industrial problems that the poor cotton planter and his cotton toilers have to go up against when it comes to the marketing of his year's toil.

Now, what concerns me at this time very deeply is this: Will the Federal Reserve Bank, by its policy of hoarding money, give the cotton producers the same dose it measured to us in 1920, whereby the credit of the country was so frozen that the cotton producers were compelled to dump their cotton on the market at a price below the costs of pro-

Will the master spinners and the master financiers again crucify the cotton planter and the cotton toiler? If they do the cotton raising industry is simply ruined.

> REV. AD. WIMBS, Editor of The Cotton Farmer.

Commercial Methods of Making Carbon Black.

In commercial practice there are four different processes of manufacturing carbon black from natural gas, states the Bureau of Mines in a recent bulletin. These are the channel system, the small rotating disk, the roller or rotating cylinder, and the large-plate processes. These methods differ mainly in the size and shape of the surface upon which the carbon is collected and the rate of travel of the moving devices. The channel process is probably the best method and is the one most extensively used. Classified according to the quantity of carbon black produced, the order is as follows: Channel process, small rotating disk process, large-plate process, and roller process. At present the production of carbon black by cracking or thermal decomposition methods is not extensive.

Paper Industry of Country Sees Southern Pine as Future Source of Pulp Supply.

By WARBEN B. BULLOCK, New York.

That the paper industry is more and more turning its attention to the Southern pine forests as a future source of raw material for the mills now located in the North, because of the possibility of more economical practice of forestry in those states, and a more rapid production of a timber crop, is indicated by an article by Oliver M. Porter, Secretary of the Woodlands Section of the American Paper and Pulp Association, in The Paper and Pulp Industry, the monthly publication of the Association. Capt. Porter, as a technical forester, was in France for nearly two years during the war period, getting out fuel wood for the American Army, and on his return went to the paper industry as Secretary of the Woodlands Section, which handles the forestry probiems of the American Paper and Pulp Association. Lately he has also become Secretary of the Pulp Manufacturers Association, of which Thomas O. Ross of the Hummel-Ross Company of Hopewell, Va., is president.

In his technical review of Southern forestry possibilities, Capt. Porter makes this conservative statement:

"A survey of the available supplies of spruce, hemlock and balsam pulpwood indicates a rather general shortage of this material. The approaching pulpwood scarcity, together with the supplies of cheap labor and fuel in the South, indicate unusual opportunities for the development of the paper industry and the Southern pineries. Foresters who are familiar with the character of tree growth in these regions, claim a rotation for the Southern pines, at least for pulpwood size, of from fifteen to twenty-five years. This means that under sustained yield management, a tract of Southern timberland would produce pulpwood not less than four times as fast as a tract of equal area in the North.

"The chemical problems in the utilization of the Southern pine are rapidly being overcome, so that pine pulpwood will gradually find its way into many other grades than coarse wrapping and kraft papers. This movement for the utilization of the Southern pine in the manufacture of paper is reflected in requests to the Woodlands Section for information relative to the methods of peeling pine pulpwood, and the costs of pine logging operations."

Capt. Porter's study of the Southern field, however, is only part of the general tendency of the paper industry to look toward the South for future raw material for the paper mills. The chief impetus toward the use of Southern species is their rapidity of growth. Spruce must be nearly 80 years old to produce a stick of pulp wood of real value. Specimens of pine such as are used by the paper mill at Bogalusa, La., grow to as great diameter as ten inches in fifteen years, and an average rotation of from fifteen to twenty-five years is considered commercially practicable, if processes can be developed for the use of this timber in the manufacture of pulp.

Sulphate pulp, and cheaper grades of pulp are already being made from the Southern woods. As yet, no commercial manufacture of sulphite has been possible, but there seems to be no reason to doubt that American ingenuity will eventually find a way of removing the pitch and rosin which is the greatest handicap at present to the making of sulphite from the Southern woods.

Some recent experiments have resulted in the making of a good grade of bleached paper of news print grade from Southern pine. The process, however, is so far too slow to be economical. The test manufacture resulted in this production of about 75 feet per minute, but news print where made at a profit on the most modern machines, is made in sheets some 200 inches wide, and at the rate of 1000 feet

per minute. This high speed is necessary if the paper is to be made at a profit.

The development of the paper industry in the South is being evidenced by continued reports of projected new establishments. Bogalusa, for instance, has made an extensive appropriation for the increase of its paper mill, as conditions warrant. The Champion Fibre Company of Canton, N. C., has started an addition costing \$1,000,000.

Governmental figures indicate even more definitely the tendency of the industry to go South. The governmental reports on pulp wood in 1918 showed twenty-three establishments making pulp in the states of Delaware, Georgia, Louisiana, Maryland, Massachusetts, Mississippi, North Carolina, Ohio, South Carolina, Tennessee and Texas. The similar report for 1920 showed such increased numbers of plants that Massachusetts and Ohio, with seven plants were taken from the list, and North Carolina as well with three, leaving eleven scattered in the Southern states. This showed no actual increase in the number of plants, owing to some consolidations, but the increased consumption of wood was notable. North Carolina, which before was classified as miscellaneous, reported consumption of 166,582 cords of wood, with 279,955 in other miscellaneous Southern states. was an increase for these states of about 100,000 cords per year.

These states, however, were only those which had fewer than three plants to the state. Virginia and West Virginia have been heavy producers of pulp and paper. In 1918 Virginia, with seven mills, consumed 129,637 cords of wood in 1918, and in 1920, with one plant eliminated by a consolidation, the consumption had gone up to 166,547 cords. These are the latest governmental figures, completed late in 1921, by the forest service. The 1918 consumption included 17,-541 cords of Southern pine, and 32,771 cords of yellow poplar. Domestic spruce and hemlock comprised the balance. In 1920, however, the yellow pine consumption increased to 29,870 cords, and of poplar to 36,934 cords. Spruce and hemlock consumption totaled about 91.000 cords, compared with 71,000 in 1918, indicating that the increase was largely in pine and poplar. There was a consumption, however, in 1920 of over 8000 cords of mill waste, when there was no such material used in 1918, indicating a much closer utilization of the forest materials.

West Virginia also showed an increased consumption of yellow pine, but not in such striking figures as was the case for Virginia

Of the 280,000 cords consumed by eleven Southern mills in 1920, not including North Carolina, Virginia or West Virginia, none was spruce, but 160,199 was Southern pine. Poplar accounted for 32,000 cords, and gum was used to a total of 39,826 cords. Hardwoods and miscellaneous species accounted for nearly 30,000 cords, while the use of mill waste totaled 18,875 cords. Much of this was probably due to the intensive methods in use at the Bogalusa plant, where the paper mill is part of the general organization of the Great Southern Lumber Company.

Texas reports that the pine is peeled in the log and not when cut into pulp wood lengths, and that the peeling is usually done with a sharpened spade when the tree is cut. Sometimes it is left until insects have loosened the bark. As a rule, the cost of peeling is about \$1 per cord, but varies with the price of common labor by localities. The bark is used to fill in low places, not being used for fuel.

Virginia rosses its woods by machine, in sticks, as soon as possible after cutting, but seldom over a year after cutting

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The cost of cutting and peeling a cord of 5 foot wood in that state was given at \$2.50.

In Maryland, the wood is peeled in the log, which is then cut into five foot lengths. Spuds are used when the sap is running, but at other times of the year the draw shave is needed, and the general plan is to peel the wood as it is cut. The average price for cutting and peeling is \$2.50.

Pennsylvania uses considerable pine, and often the trees are peeled before they are cut, by the use of drawknives. In sap season, the cost is \$1 per cord of 160 cubic feet. The bark is pressed and burned.

West Virginia Coal Operators Generally Oppose Cleveland Agreement,

Charleston, W. Va., August 21—[Special.]—In spite of a previous united front against renewing contractural relations with the United Mine Workers of America, 50 West Virginia operators signed up with the union on August 17, on the terms of the Cleveland agreement—1920 scale, check-off, closed shop, etc. Most of these companies, which include the important Consolidation, are in the northern field, although one of the Kanawha companies is among the number.

Other companies in the Kanawha field, while willing to pay the 1920 wage scale for the time being, have declined to restore the check-off or to enter into any agreement with the union, so that taking the state as a whole comparatively few companies are running their mines on a "closed shop" basis.

The position of the Kanawha operators as a whole is set forth in a statement given out by D. C. Kennedy, secretary of the Kanawha Coal Operators Association, at the time the agreement at Cleveland was signed, in the course of which he said.

"It's useless for the mine owners who are members of the Kanawha Operators Association to say anything at present, because as far as we know the strike settlement announced at Cleveland has not affected us. The few operators assembled there, representing about four or five per cent of the tonnage of the central competitive field, agreed to the terms offered by the United Mine Workers of America. That would not necessarily include the other 95 per cent, let alone West Virginia.

"Ever since the miners of West Virginia laid down their tools in a 'sympathetic' strike to aid the central competitive field miners, the mines of the Kanawha district have been mining and loading coal in increasing quantities and the 5000 men now in the mines in this district have no desire to be affiliated with any union."

It will be necessary, however, for all the mines of the state to advance wages to an extent sufficient to make them equal to the 1920 wage scale in order to hold their men, and that of course means that the public will have to pay more for coal. Most operators assert that the agreement made at Cleveland was a complete surrender to the union, even though all the operators of the central competitive field did not participate and that the operators who did yield to the demands of the union might just as well have done so in the first place instead of waiting four months. The action taken at Cleveland, operators declare, means that the miners are better organized than the operators, that some of the latter will sacrifice everything to cupidity and that the agreement made at Cleveland not only settles no issue but puts the operators as a whole completely at the mercy of the miners' union.

Acting upon recommendations set forth in a telegraphic communication from Gov. E. F. Morgan, of West Virginia, the Federal Fuel Distributor has instructed district fuel committees that the recommended fair price for coal from all West Virginia districts has been raised to \$4.50 per ton. The previous fair price prevailing in most West Virginia districts was \$3.50 per ton.

Problem of Mississippi Flood Control to Be Placed Before Congress.

Memphis, Tenn., Aug. 21—[Special.]—Nineteen major levee boards operating in the lower Mississippi Valley have rejected the bond issue plan suggested as a means to finance completion of the flood control program, and will call used Congress to enact laws placing the Federal Government in permanent control of the Mississippi River levees, according to a recent announcement by W. H. Dick, president of the Mississippi River Flood Control Association.

The resolution adopted by unanimous vote of levee boards operating in Illinois, Missouri, Kentucky, Arkansas, Mississippi and Louisiana, pointed out that the problem of maintaining a system of levees on the Mississippi River, its tributaties and outlets, is a national one, and an obligation of the Federal Government, and that laws should be enacted by Congress placing the Federal Government in permanent control of the levees situated thereon, and provide ways and means for the maintenance of a thorough levee system, under Federal supervision, expense and control.

The people of the Mississippi Valley are unalterably opposed to surrendering the established and recognized principle that control of the flood waters of the Mississippi River, coming from 31 states in the northern area, is distinctly a national problem.

Only \$6,000,000 of the \$45,000,000 appropriated by Congress in 1917 remains to be applied to the levee system. The federal fund will be exhausted next year. The 1917 flood control bill provided that \$9,000,000 should be made available annually for a period of five years, but the fund has been appropriated in smaller amounts over a period of seven years. A considerable portion of this sum has been used for bank revetment and channel improvement.

Engineers estimate that \$30,000,000 to \$35,000,000 will be required to complete all the levees from Rock Island, Ill., to the Gulf to the full section and grade recommended by the Mississippi River Commission. Several additional millions will be required to build levees along tributary streams to the head of the backwater area.

The House committee on flood control has fixed Tuesday, September 5, as the date of its hearing on a new flood control bill to be introduced at the short session of Congress beginning Dec. 15. The board of directors of the Mississippl River Flood Control Association, including representatives of practically all major levee boards, will meet in Washington on Sept. 5, to appear before the House Committee.

Use of Carbon Black in Paint.

Carbon black is coming into extensive use in paints, according to the Bureau of Mines. It has a higher tinting strength than any other black; a given weight will obscure a greater area of surface. Carbon black is acknowledged superior for varnishes and enamels. It is much used in making black and gray paints for general purposes. The United States War Department requires the use of carbon black in black enamels and in various black and gray paints. Some authorities consider lampblack superior to carbon black and it is probably true, says the Bureau, that in certain gray tints lampblack is superior on account of its bluish-gray tones.

Barge Line Tonnage Record.

The Government barge line on the Mississippi River between St. Louis and New Orleans again broke its record in July, carrying during the month, according to a report from St. Louis, about 73,000 tons of freight. The next best record was in June, when 69,500 tons were carried. Of the total 46,000 tons, most of it grain, were carried down stream and the rest up stream.

Big Bridge Under Construction at Annapolis.

Work is proceeding steadily on the Severn River bridge at Annapolis, Anne Arundel county, Maryland, the structure being built under the direction of the Maryland State Roads Commission. It consists of 24 70-ft. spans and a bascule lift giving an opening in the clear of 75 feet, and will be 1870 feet long. Including paving, lighting and necessary electric equipment for the lift spans it will cost approximately \$750,000. It was begun in March, 1922 and will be completed in September 1923.

Under the contract the bridge proper is to be completed in 500 working days, the two bascule piers in 200 working days, and bascule lift in 175 days. The bridge will have a roadway 22 feet wide, with two sidewalks each six feet wide that are overhung. The lift will be of the double leaf, Strauss type, and the roadway will be 22 feet above the water giving a clearance of about 17 feet. An ornamental approach will mark each end of the bridge; two pylons of concrete with four lights each upon them will be built. There will be space for a flower and grass plot about 16 feet wide at either side of each end and the pavements will wind about these spaces. The bridge is being built 60 feet upstream from the present wood-pile, timber bridge that now spans the Severn. Upon the completion of the new bridge the wood structure will be removed and the piles cut off as required by the War Department.

To August 15 the work completed stands as follows: Pier 0 on the Baltimore side, footings and half of piles driven; Piers 11 and 12, piles all driven and cofferdam in place—these are the bascule piers; Pier No. 17 piles all into water line; Piers 18, 19 and 20, piles driven; Pier No. 21, piles and concrete in; Piers 22, 23, 24, 25 and 26 complete to water line. Six spans of structural steel have been placed and work is now proceeding upon the erection of forms so that the pouring of concrete will be under way shortly.

In all 30 piers will be placed. According to the estimates of the Road Commission the following will be utilized: 90,000 linear feet of wood piles and fenders; 7100 cu. yd. of Class A concrete; 5900 cu. yd. of Class B concrete; 400,000 pounds of steel reinforcing bars; 5000 yd. unwashed gravel; 500 yd. rip rap; 1.500,000 pounds of fabricated structural steel; 160,000 bd. ft. of timber grillage; 300 cu. yd. of Class A balustrades. Based on these quantities the unit prices of T. L.

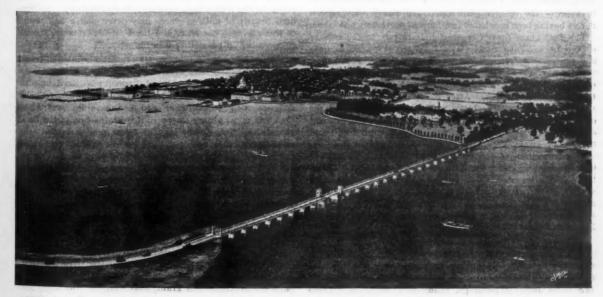
Eyre, of Philadelphia, the successful bidder are as follows: Piles 50c ft.; Class A concrete, \$21.50 per yd.; Class B concrete, \$30.00 per yd.; steel reinforcing bars 4c per pound; unwashed gravel, \$9.00 per yd.; rip rap, \$8.50 per yd.; fabricated structural steel, 4½c per pound; balustrades, \$36.00 per yd.; and timber grillage, \$117.00 a thousand feet. The total price bid by T. L. Eyre for the bridge proper was \$536.467.

A separate contract for the bascule lift was awarded the Penn Bridge Co., Beaver Falls, Pa. The following quantities were used: 257,000 pounds of structural steel; 6200 pounds of cast steel shoes; 44,000 pounds of machinery; 135 cu. yd. of concrete counterweight; 200 sq. yd. of creosoted wood floors; 14,000 feet creosoted sub-planking floors; 170 lin. ft. hand railing. The prices submitted by the successful bidder were Structural steel, \$.0678 per pound; cast steel shoes, \$.17; machinery, \$.24 per pound; concrete counterweight, \$12.00 per cu. yd.; deformed steel bars, \$.07 per pound; wood blocks for floor, \$8.00 per yd.; hand rail, \$10.00 per ft.; creosoted wood sub-planking, \$115.00 per thousand; complete electrical equipment, consisting of safety gates, motors, switchboards, controllers, switches, and some lighting, and the necessary wiring, a lump sum price of \$8200 was submitted. The total price submitted by the Penn Co. was

It is planned to use cast iron lamp standards of a simple and effective design, about 5 feet high, placed on the hand rail for lighting the bridge.

In addition to the two contracts that have been let and on which work is now well under way there yet remain to be awarded contracts for the following: Two operator's houses; for earth approaches on both the Baltimore and Annapolis sides; asphalt paving; and bridge lighting.

The maximum depth of water encountered is about 40 feet, although the mud was found in at least one place to be at least 70 feet deep. Wood piles will be used throughout, driven to 85 feet below mud. In three piers the bottom of the piles will be at least 125 feet below the water line, and these will be cut off at —45 feet. All the piers with the exception of Nos. 3, 4 and 5, will be pile and conferdam construction—that is wood piles will be driven to hard bottom, a conferdam placed about them, the water pumped out and the piles cut



HOW SEVERN RIVER BRIDGE WILL APPEAR WHEN COMPLETED IN FALL OF 1923.

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off and the concrete poured. In the case of the three piers noted above the depth of mud made it impossible to use cofferdam construction and it was not desired to introduce the use of air, hence grilling will be used. In these piers 4 layers of 12"x12" timbers, forming a float 18 by 55 feet will be assembled. Piles will be driven as in the other piers but in these three piers they will extend to 125 feet below the surface and then cut off at—45 feet. The assembled grilling will be floated in place and guide piles driven and concrete poured upon the grilling which will be sunk to rest evenly upon the piles beneath, after which the guide piles will be removed.

Approximately 80 men are now engaged in the work. Sand and gravel is being furnished by the Arundel Sand & Gravel Company of Baltimore. The structural steel is being supplied by the Phoenix Bridge Co., Phoenixville, Pa., and is being erected by T. L. Eyre. The bascule lifts will be furnished and erected by the Penn Bridge Co., Beaver Falls, Pa.

Walter C. Hopkins, bridge engineer for the Maryland State Roads Commission had charge of the design of the structure, the construction of which is being supervised by Edwin Friese, district engineer. J. N. Mackall is Chairman of the Commission and Chief Engineer, with offices in the Garrett Bldg., Baltimore.

Practically all of the equipment used by the bridge contractor is built upon scows so that it constitutes a floating plant. On shore a well has been driven to supply fresh water, and a steam pumping plant installed together with an elevated wood storage tank and tower. A storage shop and steel shed has also been established. One scow has been equipped with a complete concrete mixing plant, tower and chutes, and another with a complete steam plant has been placed in use. Two scows are used for lifting the steam hammers that are utilized in driving the piles. A tug boat is provided also. About five material scows are used, and floating storage bins are provided to facilitate quick handling of materials. A floating machine and blacksmith shop, and a very complete wood working plant have been placed upon another scow so that work of getting out forms and necessary materials will be facilitated.

The bridge proper is 22 per cent complete as of August 15.

Bethlehem-Lackawanna Deal Closing Up.

Stockholders of the Bethlehem Steel Corporation and the Lackawanna Steel Company are to meet on September 18 to approve the merger plan announced last week, preliminaries having been concluded last May as previously published.

The Bethlehem Steel Corporation is to pay to the owners of the Lackawanna Steel Co., \$35,417,180—\$308,680 in cash and the remainder new stock of the Bethlehem organization par for par. The stock will consist of \$12,500,000 of 7 per cent non-cumulative preferred stock and \$22,608,500 of the Class R. common stock. After consummating the purchase of the Lackawanna Steel Co. and the consolidation of the existing classes of stock the outstanding capital stock would consist of \$77,000,000 of 7 per cent cumulative preferred and \$82,608,500 common.

The acquisition of the Lackawanna plant will add 1,800,000 tons annual ingot capacity to the Bethlehem Corporation's total, thus making an annual aggregate ingot capacity of the plants as merged of more than 5,000,000 tons. In addition to this the Lackawanna plant has a large capacity for merchant steel bars, for the production of which the Bethlehem plants have no facilities.

The Security Lime & Cement Co., of Baltimore, will begin work in the near future upon extensive improvements and additions to its already big plant located at Security, about five miles from Hagerstown, in western Maryland. These developments will increase the capacity by about 50 per cent.

Progress of Cheese Making in a North Carolina County—Swisss Cheese Now Manufactured.

Boone, N. C., August 21.

Editor Manufacturers Record:

In June, 1915, the writer was in Watauga county and made an early morning pilgrimage to a tiny wooden building beside one of the clear little streams so numerous in this high mountain world, the supreme beauty-spot of all North Carolina. The little building was the first commercial cheese factory south of Pennsylvania and is located on Cove creek. There the milk was coming in, while a good woman, owner of many cattle remarked, "This is the first milk I ever saw bought in Wataugaa." This new development was first described in the MANUFACTURERS RECORD.

Seven years have passed since that day and remarkable things have been accomplished. Now Watauga has ten Cheddar cheese factories in operation, and one Swiss cheese factory, the latter being the first established and alluded to above. The county in the past twelve months has handled in these factories 1,293,500 pounds of milk and has turned out 129,350 pounds of cheese. Three of its factories are at present idle. If all those in the country, operated and idle, are run to their full capacity they can handle 6,912,000 pounds of milk and give an output of 691,000 pounds of cheese.

The amount of money received for cheese produced in Watauga in 1921 was \$25,870 and the amount possible to be received if all the plants are in operation at full capacity is \$138,240.

The average yield is ten pounds of cheese to one hundred pounds of milk; the average price paid for milk 11 cents a gallon; the average price received for cheese 20 cents a pound.

There are over thirty factories in this state, of which sixteen are now in operation, Allegheny county having seven and Haywood one of those at work. The types of cows are Holstein, Jersey, Shorthorn and Durham. The Holstein is found to be the best cow for this country.

The manufacture of Swiss cheese did not begin until this year and twenty-three of the cheeses have been made, of an average weight of one hundred pounds. In the manufacture of these 16,750 pounds of milk were used and the farmers were paid 20 cents a gallon for this milk. This cheese sells readily at 41 cents a pound and the tests have shown it is equal to the best cheese produced in Switzerland. One hundred pounds of milk produces only seven and a half pounds of this cheese. The state and the United States are heartily co-operating in promoting this industry.

Watauga is a grass country, its average elevation above sea level being nearly 4000 feet, its county seat, Boone, (named for the famous pioneer Daniel Boone, who lived here ten years,) being 3333 feet. The adjoining county, Avery, has an average elevation of over 4000 feet above sea level; higher than any other county in the United States east of the Rocky Mountains. This is the land of blue grass and cold water, so that no ice is necessary and cheese making goes on all the year.

The county of Watauga has in round numbers fourteen thousand people, and nine thousand cows. It is a large producer of beef cattle, which are sold in the northern markets. Its only railroad leads into Tennessee and thence northward, but the great hope of its people is for a railway aown into the state, so great a market for the things it produces. Its fruits and berries and grapes are two months later than those down-state, and August and early September show a profusion of blackberries and huckleberries. Grass is moved in August and only once during the year. Buckwheat is gathered in August also and yields well.

FRED A. OLDS.

\$3,500,000 IMPROVEMENTS AT SPARROWS decidedly encouraging. Inquiries are good and of an increasingly substantial nature. We look for next year to be a very

Bethlehem Steel Company Begins Developments
Which Will Increase Open Hearth Output 500,000
Tons Yearly—To Be Completed in 10 Months.

Improvements which when completed will involve the expenditure of \$3,500,000 were begun last week at the Sparrows Point, Md., plant of the Bethlehem Steel Company. The first unit on which work was started is to be complete and in operation within 6 months and the particular program announced is to be completed within 10 months. By these additions the output of open hearth steel will be boosted about 25 per cent, or by about 500,000 tons yearly, and this increased production will supply basic materials for the units which make finished articles of steel.

Economies in the handling of ore will be introduced by dredging deeper the channels connecting with the Government ship channel below Fort Carroll. This will make possible the handling of vessels of the largest type. A dredge has been at work for some time in Humphreys Creek on the north side of Sparrows Point removing material from the river bottom and depositing it inland preparatory to reclaiming for building purposes about 60 acres of land, which will provide a big area for future expansions.

The new work outlined will provide employment for many men in actual construction, and increase the permanent payroll force after the units are placed in operation.

Relative to these improvements, H. E. Lewis, vice-president, of the company, writes the Manufacturers Record as follows:

"The authorized expenditures include the addition of one 250-ton tilting open hearth furnace to our present No. 2 open hearth, making a complete unit of five 250-ton open hearth furnaces. Adding to the present five 70-ton rebuilt stationary furnaces in No. 1 open hearth four 100-ton stationary furnaces, thereby increasing our ingot output of the plant by approximately 400,000 tons per year.

"The addition steel, it is planned, will be consumed in the present finishing mills.

"The other important expenditure authorized is the installation of a 10,000 kilowatt turbo-generator with boiler plant, condensing system, etc., complete as an auxiliary to our gas engine station and to provide additional power for the additional ingot tonnage."

Continued Activity in Building an Unfailing Sign of Prosperity in the South.

Despite severe handicaps caused by increased labor and material costs and the trouble occasioned in getting a sufficient supply of both, building in the South continues at a high level. New projects are getting under way, many announcements have been made of developments to be started in the near future and architects and engineers have plans in preparation for scores of undertakings of various kinds. Inducations are that the lettings this fall will be heavy, and that much work will be carried to completion during the winter months, as it is believed by some that both materials and labor will then be cheaper and more plentiful.

J. P. H. Perry, vice-president of the Turner Construction Co., of 244 Madison Ave., New York, in a letter to the Manufacturers Record concerning the building situation writes: "Since July 1, or in the past six weeks our company has been awarded contracts for industrial buildings at a total cost of \$2,265,000. The interesting part of the spurt in our business is the diversity of industries included. This volume of business in this time is the best we have had since in March and these two periods are the best we have had in nearly two years. The outlook for the balance of the year is

decidedly encouraging. Inquiries are good and of an increasingly substantial nature. We look for next year to be a very good year along industrial building lines, particularly in the South. We have in prospect considerable work in that territory in the next three or four months and believe the future of the South should be rosy for the next three or four years at least." Contracts which the company received during the six weeks' period beginning July 1 included construction for the following firms: American Can Co., New Orleans, La.; Carborundum Co.; Arlington Chemical Co.; Long Island Railroad Co.; Schock Estate; Standard Underground Cable Co., St. Louis, Mo.; Towns & James, Sanford Mills, Sanford, N. C.; Lautz Marble Co. and the National Biscuit Co.

A striking feature of the building now under way and in prospect is its diversity and widespread character in point of territory, practically every section of the South sharing in the big program.

Contract will be awarded this month for a \$250,000 hotel to be constructed at San Antonio, Tex., for the Travis Investment Co., after plans by Herbert S. Green, architect. 203 Alamo Bank Bldg. It will be 150 by 200 feet, of reinforced concrete.

The West Point Iron Works, West Point, Ga., have the contract for a \$125,000 school to be erected at Brunswick for the Board of Education of Glynn County. It will be 90 by 100 feet, three stories high, of brick and reinforced concrete. Henrik Wallin, Savannah, Ga., is the architect.

Bids will be asked in about 60 days for a \$700,000 hotel to be erected in Greenville, S. C. after plans by W. L. Stoddard, architect, for Wm. Goldsmith. Plans call for a 100 by 150 foot structure, of reinforced concrete and steel.

J. De Puy, San Antonio, Tex., has the contract for a building to be erected at Goose Creek for the Goose Creek Independent School District at a cost of \$148,000. Charles Page & Co., Austin, are the architects.

Plans will be ready in about 30 days for a high school building at Concord, N. C. to cost \$150,000. C. Gadsden Sayre, of Anderson, S. C., is the architect. At the same time bids will be received for a colored school. J. A. Cannon is chairman of the building committee and Λ. S. Webb, superintendent of schools, both at Concord.

J. W. Stout & Co., Sanford, N. C. were awarded the contract for a public school building at Bryson City, after plans by C. Gadsden Sayre, architect of Anderson, S. C. The same architects planned an addition to the public school at Concord, N. C., the contract for which has just been awarded to Jno. R. Query, of that place.

The Wise Granite and Construction Co., Richmond, Va., has the contract for a \$350.000 bank and office building for the Grace St. Bank & Trust Co., Richmond. Marcellus E. Wright, of Richmond, is the architect. It will be 60 by 100 feet, 10 stories high with basement, of steel concrete, stone and brick.

The Houston Power Co., Newton, Ala., which recently received a preliminary permit from the Federal Power Commission to construct a 3000 horsepower hydro-electric plant on the Choctawhatchee River at Waterford, Ala., has engaged the Southern Engineering Corp., Albany, Ga., as engineers and a survey is now under way. Bids will be requested upon the completion of the survey and plans.

Stevenson & Cameron, Inc., 37 West Twenty-Fifth St., New York, have the contract for a residence, guest house and garage at Failview Point, Talbot County, Md., near Easton, for Glen Stewart. Bradley Delehanty, 2 W. 45th St., New York, is the architect.

Preliminary sketches have been made by H. W. Witcover, architect of Savannah, Ga., for a Scottish Rite Cathedral to be erected at Jacksonville, Fla., at a cost of \$250,000. E. H. Paxon is chairman of the building committee.

Bids will be opened early in September for a vocational

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school building to cost about \$180,000 to be erected at Charleston, S. C. David B. Hyer, Peoples Bldg., Charleston, is the architect.

N. & G. Taylor Co., Inc., Phila., Pa., are arranging to extend the use of fuel oil to various parts of their plant at Cumberland, Md., as a safeguard against any fuel shortage. The open hearth furnaces are already being operated by fuel oil.

W. V. Bell and W. P. Kirtley, of Horse Cave, Ky., are interested in the erection of a hotel to cost approximately \$100,000.

The contract for the Carnegie physics building at Georgia Tech, Atlanta, Ga., has been let to the Pittman Construction-Co., of Atlanta, and work will begin immediately according to an announcement by Robert & Co., engineers and architects. The new building which will cost \$200,000 will be ready about February 15, 1923.

The Minter Homes Co., Greenville, S. C., has been awarded contracts within a few months for building houses and schools in North Carolina, Georgia and South Carolina to cost about \$300,000. Seventy-five houses to cost \$110,000 are nearing completion at the Ware Shoals Manufacturing Company's plant. The Fairmont Manufacturing Co. has let the contract for 19 houses to be erected at Fairmont. At Bessemer City 20 houses are being erected for the Osage Manufacturing Co. while an equal number are being built at Hermitage for the Hermitage Cotton Mill. Seven schools and 22 houses are being built now in Atlanta by the company, 16 houses in Greenville, five in Valdosta, Ga., three in Asheville, N. C. and six in Spartanburg.

Census of Dyes and Other Synthetic Organic Chemicals for 1921.

The United States Tariff Commission has issued a "Census of Dyes and Other Synthetic Organic Chemicals" for the calendar year 1921. Included in this report for the first time is a census of synthetic organic chemicals other than those derived from coal tar. The report shows a largely reduced output of dyes in 1921. This relatively limited production more nearly represents our domestic requirements, for the very high output of the previous year was coincident with a considerable export trade of the United States. This reduced output in 1921 may be accounted for by the loss of most of our export trade, the large stocks carried over from the previous year, and the general business depression, says the report of the Commission, from which the following facts are taken:

The progress made during the year includes the production in the United States for the first time of a number of dyes of greater complexity and more specialized application. Many of these dyes, which are of secondary importance from the point of view of quantity consumed, are essential in the dyeing and printing of numerous fabrics. These additions to our list of dyes represent an added step toward a well-rounded coal-tar chemical industry in this country. The development of many of these new products is a highly technical achievement.

There were 201 firms engaged in the manufacture of coaltar derivatives in 1921. The output of dyes by 74 firms exceeded 39,000,000 pounds, a decrease of 56 per cent from that of 1920. The sales during 1921 exceeded 47,000,000 pounds valued at more than \$39,000,000. The sales exceeded production by 22 per cent, indicating that a part of the domestic consumption for that year was supplied from the large stocks carried over from the previous year's abnormally high production. The sales, of dyes for 1921 exceeded the imports of 1914, when the United States imported nearly 46,000,000 pounds and produced over 6,000,000 pounds of dyes from German imported intermediates.

Conspicuous progress was made in the production of other finished products derived from coal tar. This is particularly true in the field of synthetic medicinals, many of which are essential to the public welfare. Of other finished products derived from coal tar, the production of perfumes and flavors showed an increase compared with that of the previous year, while the output of color lakes, photographic chemicals, medicinals, synthetic phenolic resins, and synthetic tanning materials showed reductions in 1921.

The average price of all dyes in 1921 was 83 cents per pound, compared with a value of \$1.08 per pound in 1920 and a value of \$1.26 for 1917. The tendency has been to reduce both the cost of production and sales price of dyes produced in the United States. In comparing the prices of these different years, it should also be borne in mind that the development of dyes each year of greater value and complexity has tended to increase the average value per pound of all dyes produced.

The total quantity of dyes imported in 1921 was 3,914,036 pounds valued at \$5,156,779 or \$1.32 per pound, compared with 3,402,582 pounds valued at \$5,763,437 in the previous year. The imports of 1921 represent 10 per cent of the production and about 8 per cent of the total dye sales during the year. Germany supplied about 48 per cent of the total dyes imported during 1921; Switzerland, 41 per cent; England, 7 per cent, and all other countries, 4 per cent of our importation of dyes.

Exports of domestic dyes for 1921 show a decrease of nearly 79 per cent compared with the previous year. The value for 1921 was \$6,270,139 compared with \$29,823,591 in 1920. The total exports for 1921 were less than for the year 1917, when the first considerable expansion of the domestic dye industry from prewar conditions occurred.

This great reduction in our export trade may be attributed in part to the general business depression, continues the report of the Commission, but the chief cause was the appearance of German dyes, with which the domestic producers have been unable to compete in such principal world markets as China, India, and Japan.

The total production of synthetic organic chemicals other than those derived from coal tar, which are used as medicinals, perfumes, flavoring ingredients, solvents, and in numerous industrial processes, was 21,545,186 pounds; the sales amounted to 16,761,096 pounds valued at \$13,746,235. The development of this industry in the United States has been similar to that surrounding the dye industry, as our supply of synthetic organic chemicals was controlled primarily by Germany prior to the war.

Copies of the "Census of Dyes and Other Synthetic Organic Chemicals, 1921," Tariff Information Series No. 26, may be obtained for 15 cents from the Superintendent of Documents, Government Printing Office, Washington.

Important Coal Deal—Capacity of Mine to Be Increased from 500 to 2000 Tons Daily.

Fairmont, W. Va., August 17—[Special.]—One of the most important coal deals to be consummated here in years was the purchase of the plant and property of the Chesapeake Coal Co. by the Fairmont-Chicago Coal Co., organized recently with a capital stock of \$600,000. The Chesapeake mine, within a mile of the city, which now has a daily capacity of 500 tons will be enlarged at a cost of \$200,000, and the output increased to 2000 tons daily. The Fairmont and Cleveland Coal Co. will act as selling agent.

The officers are: E. F. Hartley, president; T. H. Johnson, vice-president; W. A. Watson, general manager.

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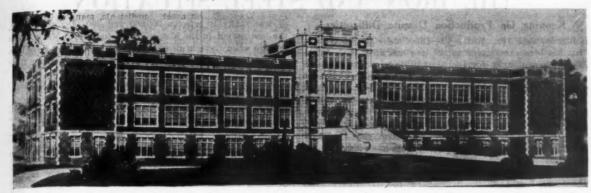
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NEW \$425,000 HIGH SCHOOL FOR GASTONIA.



Under construction at Gastonia, N. C.; 258x190 ft.; 3 stories and basement; fireproof construction; face brick with limestone trimmings; composition roof; composition and wood floors; 17 classrooms, cafeteria and kitchen, domestic science department, manual training, etc.; auditorium on first floor to seat 1500 with stage 30x70 ft., and fly gallery; cost, exclusive of site, \$425,000; White, Streeter & Chamberlain, Archts., Gastonia; Jno. A. Gardner, Gen. Contr., Charlotte.

No Time for Cowardice or Timidity.

D. C. EARNEST, Dallas, Tex.

Your editorial in the issue of August 10, "Compromise Is a Crime," is unanswerable, as are your other editorials on the labor unions.

Some 1300 train service employes of the Elgin, Joliet & Eastern Railway quit work because national guardsmen were summoned to Joliet. Now, why were national guardsmen sent to Joliet? They were called for after the sheriff of the county was shot through the head and two men were killed while the sheriff was attempting to protect a non-union man from violence on the part of strikers. When these 1300 men struck for the reason given they simply served notice on the state authorities that it had no right to protect a non-union man.

Right now is the time to determine who is running this country. It is no time for the President or any governor of a state to be timid. If law breakers will not recognize anything but force, force is what they should have.

Your suggestion that aliens not be permitted to join labor unions is excellent, and in this connection I would like to suggest that the United States Government take a census of all union coal miners in this country, ascertain their nationality and whether they are citizens of this country or not. Perhaps if our cowardly politicians knew what an enormous percentage of striking miners are not citizens and therefore unable to vote they would pay less attention to their unreasonable demands.

The proposal to take all shop craft employes back with "seniority rights unimpaired," is not only inconceivable but utterly shameless.

If this country is to be saved from anarchy we should have a thousand publications with the spirit of the Manufacturers Record. Keep up your good work for America!

Two Large New Steamers for Bay Line.

The steamer State of Maryland, launched recently at the Pusey & Jones shipyard, Wilmington, Del., for the Baltimore Steam Packet Co., or Old Bay Line, will upon its completion this fall be placed in service on the Chesapeake route between Baltimore and Norfolk, with R. S. Foster as captain. The vessel is 330 feet long and 58 feet wide with a maximum carrying capacity of 660 passengers and 600 tons of freight. The boilers and engines will be enclosed in a steel well extending from the keel to the hurricane deck so that any fire from the engine room could not be communicated to the rest of the vessel. There will be five watertight bulkheads either

or all of which can be instantly shut in case of collision. The hull is of the anti-rolling type to reduce as much as possible the motion of the vessel resulting from heavy seas. Speed is rated at 18½ knots an hour. The State of Virginia, a companion ship, will also be completed this fall.

Imports of Rock for Roads.

By KIRBY THOMAS, New York.

Recently a shipment of rock intended for road purposes, "road metal," as such material is sometimes called in the trade, was landed at Orange, Tex., from a ship hailing from a Brazilian port, which carried the material as ballast. It has been reported that regular shipments of this material as ballast may be undertaken. This unique international exchange is made possible by the fact that the absence of suitable road making material in the coastal region of Texas and the great demand for such a product in these days of widespread road construction, requiring especial material to meet the specifications demanded by the new auto and truck traffic.

The increase of railroad rates has also disjointed the distribution plans for such cheap and bulky products. It is possible that South American, or possibly European steamers, coming to gulf ports for cotton and other similar products, may, in default of any demand in the region tributary to these ports for other cheap bulk materials such as iron ore, magnesite, clay, etc., which can be carried in ballast, find it profitable to bring regularly increasing amounts of road metal from abroad. The idea is certainly an interesting one for the shipping concerns.

Another instance of the import of rock for roads and streets is found in the Great Lakes trade. An American company is operating, extensively, a trap rock quarry on the north shore of Lake Huron in Canada and shipping the product to Cleveland and Detroit and other lower lake cities, which are in localities which do not afford local supplies of suitable hard rock for road and street purposes.

The fact that heavy material like pig iron, which was formerly transshipped from the Gulf ports to the Pacific Coast states by interior rail haul, can now go via the Panama Canal thus avoiding the increased rail rates and avoiding transfer, will tend to make it more difficult for ships plying to the gulf ports to find a suitable ballast cargo.

It should be noted that the Texas situation is temporarily influenced by a shortage of cement, but the providing of a sufficient local cement supply will still leave the question of cost of freight as a factor which may permit of the continued importation of road rock from abroad under special shipping conditions.

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THE IRON AND STEEL SITUATION

Keeping Up Production Despite Difficulties.

Birmingham, Ala., August 21-[Special.]-The uncertainty that has been experienced in the iron and steel trade in the Birmingham district for the past 10 days to two weeks is nerve-racking. Despite the troubles encountered, production has been kept up splendidly. The coal priority plans and the rail strike are the disturbing elements, the latter trouble giving more concern than the average observer would notice. The cast iron pipe plants have felt the delays in delivery and for a few days there were indications that the make might be interfered with. However, there has been continued operation all around. Settlement of the strike in the soft coal fields of the central competitive fields has not brought about any lagging in the demand for the Alabama product and much controversy is still on because a few operators, who can operate successfully only when there is an emergency like that of today, have seen fit to ask for the highest possible price for spot coal and will sell only as they produce, upwards of 80 to 90 per cent of the coal being mined in this state being shipped on contracts which were made prior to July 1 and which carry prices under the Secretary Hoover maximum quotations, f. o. b. mines.

Pig iron sales are being made for delivery during the fourth quarter of the year on a \$20 per ton base, No. 2 foundry. Inquiries for iron for next year's delivery have taken on additional speed this week but no sales are reported yet. Indications are that the 1923 price for pig iron will be around \$21 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon. It will make but little difference if Northern and Western blast furnaces resume after the fuel situation is relieved, there is a need for iron that it will be acceptable from any section where offered. Two blast furnaces are in readiness for operation, the Holt furnace of the Central Iron & Coal Company and the No. 1 furnace at Ensley of the Tennessee Coal, Iron & Railroad Company, but not until the situation clears up some will effort be made to get them started. The Republic Iron & Steel Company has a furnace in condition also which can be operated on short notice. A most optimistic feeling is noted in the pig iron market in this district, despite the

The American Tar Products Company has put into service at its Woodward plant a method of firing boilers with puiver-

They are offering pitch for sale to reduce heating costs 25 per cent. Fuel pitch is crushed to 34 inch size and shipped to consumers in coal cars, the unloading and hauling being done the same way as coal is handled and stored. In appearance fuel pitch resembles high grade bituminous coal and is burned in the pulverized form. The furnace settings required are the same as those used for pulverized coal but only pulverizers of the impact kind can be used. The American Tar Products Company has applied for patents on the burners. The heating value of fuel pitch is 16,000 B T U per pound or 20 to 30 per cent more than the best grades of coal. The ash in fuel pitch is a fraction of one per cent.

Cast iron pipe and sanitary pipe making plants have kept in steady operation. Delivery of high pressure pipe, except in the South and Southwest, has been very difficult and reports have been current that some cancellation of orders have been put in. All local consumers of pig iron have been buying for expected needs for some time.

Scrap iron and steel prices have taken on some strength and the delivery proposition is felt by the dealers in old material.

Coke is in good demand but production will not be increased as long as the critical situation is on.

Coal production in Alabama even with the car supply more

or less shaky is between 390,000 and 400,000 tons a week. the best output in the history of the industry. Mines which operate when there is an emergency or big demand have been getting as high as \$5 to \$7 per ton, f. o. b. mines, for their

Quotations for pig iron and iron and steel scrap follow:

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$19.50 to \$20.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$20.00 to \$20.00; iron of 2.75 to 3.25 per cent silicon, \$20.50 to \$21.00; iron of 3.25 to 3.75 per cent silicon, \$21.00 to \$21.50 iron of 3.75 to 4.25 per cent silicon, \$21.00 to \$21.50 iron of 3.75 to 4.25 per cent silicon, \$21.00 to \$22.50 iron of 3.75 to 4.25 per cent silicon, \$21.00 to \$21.50 iron of 3.75 to 4.25 per cent silicon, \$21.00 to \$22.00; charcoal iron f. o. b. furnaces, \$30.00 to \$32.00. OLD MATERIAL

	ULL	433	100	ж.	83	Eb.	 N.S.,	dα,						
Old steel axles							 		 *		 	\$15.50	to	\$16.00
Old iron axles													to	16.00
Old steel rails													10	16.00
Heavy melting steel													to	15.00
No. 1 R. R. wrought							 				 	13.00	to	15.00
No. 1 cast													to	16.50
Stove plate							 					15.00	to	16.00
Old car wheels													to	15.00
Old tramcar wheels													to	16.50
Machine shop turnings							 			. ,	 	7.00	to	8.00
Cast iron borings													to	11.00
Cast Iron borings. (Ch.	em.)						 					15.00	to	16.00

RAILROADS

Southern Railway Quits Temporizing With Strikers,

President Fairfax Harrison, of the Southern Railway Co., who last week declared that if continued operation of its lines meant war then let it be war now, has issued a statement saying:

"Normal transportation will be restored when public opinion asserts itself. If that public opinion supports the determination of the striking shopmen to disregard the judgments of the tribunal set up by Congress to do them justice and agrees that they may write their own pay checks, then there may be a resumption of work on that basis, but freight rates must be again increased.

"On the other hand, the responses received to my public statement on Monday last show that the people all over the South, who pay the freight, want justice done-no more, no and to that end now demand that this strike be fought

"It remains for those who feel that way about it to volunteer their active aid in the shops and roundhouses during the crisis. The Southern will afford an opportunity to all citizens to assert themselves, and under protection to give practical effect to their opinions in the present situation.

It may be added that Mr. Harrison has heretofore been conspicuous among the railway executives for having kept open unconditionally the positions of those Southern Railway shopmen who went on strike, so that this announcement indicates a complete reversal of policy, and the company will now employ outside men. A report from Knoxville, Tenn., says that the large shops at Coster will be opened at once and that strikers can return if they wish, but outsiders will now be employed if they seek work.

Coal Shipments Increasing.

Loadings of coal cars continue to increase, according to a statement from the Association of Railway Executives which says that during the week ended August 5 there were 79,246 cars loaded with coal, an increase of 2872 cars as compared with the previous week. Total freight loadings for the week were 851,351 cars, which while somewhat lower than the previous week were 65.173 cars more than the loadings of the corresponding week of last year. Ore loadings increased by 2071 cars as compared with the previous week, their total being 66,218 cars. The declines were mainly in loadings of merchandise and miscellaneous freight, grain, grain products, live stock, etc. In the Pocahontas region the increase over the previous week was 2226 cars, due almost entirely to increased shipments of coal.

Part of Line to Be Operated.

The Memphis, Dallas & Gulf Railroad, which was sold last week at receiver's sale at Nashville, Ark., was bought by a syndicate headed by C. M. Conway, of Texarkana, for \$225,000. It is stated that 61 miles of the line will be rebuilt and kept in operation between Shawmut and Ashdown, Ark., the rest of the line having been abandoned. The Hot Springs properties of the railroad were bought by George Belding and E. W. Rector of that city and the properties at Arkadelphia were bought by J. C. Wallis of that place. It is further stated that Mr. Conway and others will operate 264 miles between Ashdown and Nashville, but that the line from Nashville to Shawmut 34% miles will be operated by H. C. Couch of Pine Bluff, Ark., and J. K. Riffle, of Little Rock. It is expected that another syndicate will be formed to take over the abandoned part of the road.

Motor Car Service to Be Established.

The United States Court at Texarkara, Tex., has confirmed the sale of that part of the Marshall & East Texas Railway between Marshall and Elysian Fields, Tex., 171/2 miles, to the Marshall, Elysian Fields & Southeastern Railway Co, which has been organized to operate it. Those interested in the new company are B. H. Timmins, A. E. Lacey, and J. B. Furrh, of Elysian Fields, and Marvin Turney, W. L. Barry, W. L. Pitts and J. C. Kennedy, of Marshall, Tex., all of whom are directors. Application will be made for a charter with authorized capital of \$30,000. The track is to be repaired and a motor car will be operated.

New Company to Operate Virginia Line.

The sale of the Franklin & Pittsylvania Railroad which runs from Rocky Mount, Va., 37 miles eastward to a connection with the Southern Railway at Gretna, Va., has been approved by the district court, the purchaser being the Franklin & Pittsylvania Railway Co., capital \$100,000. The president is N. P. Angle, of Rocky Mount, and R. E. Ferguson, of the same place is secretary. Other directors are C. S. Dennett, of Toshes, Va.; Oliver W. Dudley, of Danville, Va.; J. P. Lee and C. J. Davis, both of Rocky Mount. It is intended to again operate the line.

Short Line to Be Restored.

According to a report from Poplar Biuff, Mo., the Ozark Southern Railroad has been bought by business men at Ava, Mo., who will soon put it in operation. They will spend a considerable amount of money for new equipment and for track repairs. It is stated that \$65,000 was paid for the line to C. A. Vrooman of St. Louis. The road is about 12 miles long from Ava to Mansfield, Mo., giving an outlet for farm and lumber products. The new owners include W. E. Wankin, Jesse A. Mitchell and A. P. Miller, of Ava.

Approval of Deal Refused.

The Interstate Commerce Commission has denied the application of the New Orleans, Texas & Mexico Railway Co. or Gulf Coast Lines, for permission to purchase the Goose Creek Railway from R. S. Sterling for \$925,000, upon the ground that the deal would not be in the public interest. The line is 25 miles long and serves the refinery of the Humble Oil & Refining Co. of which Mr. Sterling is president.

Electric Railway to Be Sold.

.The Asheville & East Tennessee Railroad, an electric line running from Asheville to Weaverville, N. C., 9 miles, is to be sold in the latter part of October, according to an order of the superior court at Asheville, on a petition from stockholders and J. S. Coleman, receiver.

New Equipment, Etc.

Chesapeake & Ohio Railway, which has ordered 50 refrigerator cars of 40 tons capacity from the American Car & Foundry Co., is also having 4000 steel coal cars repaired at several plants thus: Illinois Car & Mfg. Co., Hammond, Ind., 1000; Keith Railway Equipment Co., of the same place, 500; Richmond Car Works, Richmond, Va., 1000; American Car & Foundry Co., Huntington, W. Va., 1500.

Wheeling Steel & Iron Co., of Wheeling, W. Va., has ordered a 6 wheeled switching locomotive from the American Locomotive Co.

Car inquiries recently reported include the following: Tennessee, Alabama & Georgia Railway, 20 box cars and 20 composite gondola cars, all of 50 tons capacity; West Virginia Pulp & Paper Co., 10 steel underframe box cars.

Texas Company has ordered 5 tank cars of 5000 gallons capacity from the Pennsylvania Tank Car Co.

Missouri, Kansas & Texas Railway is reported in the market for 40 mikados, 5 Pacific and 10 switching locomotives.

Central of Georgia Railway will purchase 100 flat cars and Illinois Central Railway 75 caboose cars.

Railroad Earnings for Six Months.

The Interstate Commerce Commission reports for the first six months of 1922 the aggregate earnings of 186 Class 1 railroads and 15 switching and terminal companies as follows: Total operating revenue, \$2,611,125,035; decrease, as compared with the same period of last year, \$65,056,000; total operating expenses, \$2,078,672,589; decrease, \$284,671,-371; operating income, \$384,505,940; increase, \$205,614,618.

TEXTILE

Rapid Progress on a Texas Cotton Mill-The First of fen to Be Erected.

Construction is progressing rapidly upon the first mill of the Planters and Merchants Mills, now being erected at New Braunfels, Tex. It is anticipated that the mill will be ready for operation by the first of the year. Power will be furnished by a dam, which has just been completed across the Guadalupe

Complete plans call for the erection of a string of 10 mills, and work upon these will follow in quick succession atter the first mill is placed in operation. Sites have not yet been definitely selected for the additional mills, nor have the sizes



POWER DAM ON GUADALUPE RIVER, TEXAS, NEAR NEW BRAUNFELS.

For operating first of ten big textile mills projected. been determined. The Mill No. 1 will manufacture gingham cloth and will contain 10,000 spindles and 350 looms. The Franklin process of dyeing will be used.

Among the firms that furnished materials for the mill now

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under way are the following: Crompton & Knowles Loom Works, Worcester, Mass., James Leffel & Co., Springfield, O., Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., R. D. Cole Manufacturing Co., Newnan, Ga., and Alamo Iron Works, Alamo, Tex.

Lockwood, Greene & Co., of Atlanta, Ga. and Boston, Mass., are the engineers in charge of construction and handle all equipment purchases.

Lupton Interests Developing 850 Acre Tract on Which Twelve to Fifteen Textile Mills Will Eventually Be Erected—First Units to Cost \$500,000.

Chattanooga, Tenn., August 17—[Special.]—Roberts & Co., Atlanta, Ga., are at work on surveys and plans for the Dixie Spinning Mills, which ultimately will result in the erection of twelve to flifteen units to contain approximately 15,000 spindles each for spinning fine yarns. The output of these mills is to be used exclusively by the Dixie Mercerizing Co.

A site of about 850 acres has been secured five miles from the city, on which the developments will involve the expenditure of between \$8,500,000 and \$9,000,000. The property is north of the Tennessee river and was previously known as the Caldwell tract. On it a number of the mills and the villages will go up, each mill to be separate in that it will be a complete unit with its own village, etc. Welfare work will be conducted from a community center, to be well equipped with an athletic field and other modern conveniences and facilities.

A landscape architect has been engaged to plot the land and lay out the various gardens, etc. This feature will be given especial attention, and the entire community will make a most attractive appearance. The houses will be carefully planned and well built.

The cost of the work to be undertaken initially is given as \$500,000. The factory buildings will be modern daylight plants of brick with steel sash. In the first unit 10,000 spindles will be installed and 100 employes will be engaged. The mills will be operated by electricity.

The Dixle Spinning Mills has a capital stock of \$1,000,000 and its officers include: Carter Lupton, president; T. H. Mc-Kinney, vice-president; J. T. Harrison, secretary-treasurer; J. F. Harrison, general manager.

Change of Name and New Building.

Clover, S. C., August 19—[Special.]—C. N. Alexander, manager of the Reynolds Cotton Mills at Bowling Green, three miles north of here, has announced that the name of the mills has been changed to the Bowling Green Spinning Mills. Contract for a new building 200 feet long has been awarded, and additional spindles numbering 5000 will be installed. It is proposed to increase the capital stock to \$100,000; eight new houses are to be built. A contract has been closed with the Southern Power Co. for electric power to be used in the mill and village.

Hosiery and underwear yarns will be manufactured. The officers of the mills will be: S. A. Sifford, president, of Clover; N. Alexander, treasurer and general manager.

LUMBER AND BUILDING MATERIALS

Building Supply Plants at Capacity.

Chattanooga, Tenn., August 17—[Special.]—Building is going forward steadily, not only in this section, but throughout the South. Lumber, cement, lime, brick and structural steel plants, that are not hampered in their operations by shortage of fuel, are at capacity, unable to keep up with the demand.

Brick kilns are months behind especially on a face brick. Hardwood lumber mills have increased their operations. Export business has improved rapidly, and generally conditions are very encouraging.

Orders Climb High for Southern Pine.

New Orleans, La., August 17-[Special]-Sales of Southern pine lumber mounted to a high level during the week ended August 11 according to the report of the Southern Pine Association from 130 subscribing mills, which shows receipt of orders totaling 4521 cars containing 93,408,381 feet. The average order per mill received was 718,526 feet. This compares with the average of 633,604 feet per mill for the preceding week. For the past four weeks sales have been well maintained, indicating the acute need for materials throughout the country. The lumber is being shipped as quickly as cars are available, and many firms are using tracers to facilitate quick shipments. Stocks on hand in the lumber yards throughout the country are known to be below normal, and practically all of the buying now is for immediate use. Production is being maintained, amounting to 67,685,436 feet or an average of 607,455 feet per mill compared with the average for the preceding week of 600.707 feet per mill.

At the end of the week the total unfilled cars on order was 16,847 which exceeds by a good margin the unfilled car orders for many months. The average unfilled orders per mill amounted to 2,677,507 feet, contrasted with 2,454,396 feet average for the week of August 4.

As a result of the stimulated buying prices have stiffened

considerably, and many reports are heard of difficulties in getting deliveries on lumber ordered at the low figures prevailing during the spring months. As a result dealers have been compelled to go into the open market and make purchases.

The shipments for the week of August 11 were 14.29 per cent below production. Orders were 18.28 per cent above production and 38.00 per cent above shipments. The increase in orders on hand during the week amounted to 7.98 per cent.

The summary report for the week is as follows:

Orders on hand beginning of week	Cars. 15,602 4,521	Feet. 322,352,922 93,408,381
Total Shipments during week	20,123 3,276	415,761,303 67,685,436
Orders on hand end of week	16.847	348,075,867

Brick Shortage at Louisville.

Louisville, Ky., August 19—[Special.]—A shortage of bricks due to conditions growing out of the rail and coal strikes threatens the building industry in this section. Prices of all kinds of brick have advanced \$2 a thousand recently.

Meanwhile many plans are announced for new dwellings, and such operations will tend to reduce the housing shortage. Rents have not come down to any appreciable extent, and this is taken to indicate the lack of sufficient accommodations.

Alabama State Banks Gaining.

H. H. Montgomery, superintendent of banks, Montgomery, reports for the state banks of Alabama on the call of June 30, 1922, total resources of \$111,728,577, an increase of \$262,317 as compared with the call of Dec. 31, 1921. Demand deposits were \$54,461,094 and savings deposits, \$29,980,525; loans and discounts, \$79,044,069; capital stocks, \$11,489,332; surplus and undivided profits, \$9,051,144. There were on June 30, 249 banks and 20 branches.

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GOOD ROADS AND STREETS

North Carolina Far Ahead of Its Mammoth Road Building Program—To Award 29 More Contracts On August 30.

Raleigh, N. C., August 19—[Special.]—Awarding of 29 road projects on August 30 by the State Highway Commission will bring the lettings this year to 1114 miles or more than 100 miles beyond the "1000 miles in 1922" program announced at the beginning of the year. And the total cost of the new construction authorized in the first eight months of 1922 will exceed \$22,000,000, or nearly one-half of the \$50,000,000 provided for road work in the state originally for a five year period.

With these last awards the state will have set up a road building record beyond parallel in the history of road building in America and perhaps in the world. Since January 1 contracts have been let for 568 miles of hard surface and 546 miles of gravel roads.

The August letting will be the final big award of the year and thereafter the commission will center its attention upon construction now temporarily held up by the rail strike conditions. Work in this state has been placed under way early in anticipation of widespread demand for the services of contractors when other states start their road programs next spring.

Altogether the road program outlined in 1919 is now approximately half complete. Slightly more than 2700 miles of highways have been built, or are under construction or under contract. In addition to this the system includes many miles of good roads built by the counties before the state took over the system.

Some idea of the tremendous undertaking in the completion of the 29 projects to be let to contract this month may be gained when it is considered that specifications call for clearing of 153 acres of land, excavation totaling 1,349,450 cubic yards of earth and rock, while the bridges on the various projects will necessitate the use of approximately 2,328,110 pounds of structural and reinforcing steel.

\$10,000,000 for 700 Miles of Kentucky Highway in Two Years.

Paducah, Ky., August 21—[Special.]—More than 700 miles of improved highways were completed in this state in the two-year period ended July 1, 1922. The report of State Highway Engineer Boggs, sent to the secretary of the commission, indicates that Kentucky spent \$10,231.273 for roads during this period. The report shows that only \$482,435 went for the costs of administration, or about 4.7 per cent of disbursements.

There are at present 347 miles of state aid, state and federal aid roads under construction. The department has 807 miles of road under its supervision. Individual counties contributed about about \$1,250,000 for this work.

During the two-year period the road department received \$447,549 from the state gasoline tax, \$2,844,824 from automobile license fees, and Federal aid totaled \$1,639,673. These sums were collected by the department in the period from June 30, 1921 to July 1, 1922. The total collection of more than \$10,000,000 represents the two-year period.

\$400,000 in New Road Construction Planned for Muskogee County.

Muskogee, Okla., August 19—[Special]—With 105 miles of modern highway in Muskogee county's program now complete there are contemplated approximately 61 miles in addition. When all of these highways are complete there will

be a modern driveway leading from this county into every adjoining county, and various other roads will link up the entire system. The estimated cost of this new construction now contemplated is \$400,000.

The present road building program began four years ago, and all the improvements have been undertaken with bond issues. By building roads that were entitled to federal and state aid the work in the county has been advanced rapidly.

Construction of a highway, 17 miles long, between Warner and the Muskogee-Haskell county bridge is now planned, and it is estimated that this section will cost \$180,000. Plans have been approved for 11 miles of road between Warner and Webbers Falls, where a bridge is being built into Sequoyah county, and this will form an important link in the Albert Pike highway which is to link Colorado Springs with Hot Springs, Ark.

A survey for a road east of Fort Gibson on the road to Tahlequah is partly complete, and it is estimated to cost \$30,000 when finished.

Other roads are being surveyed and planned throughout the country and the entire program is being advanced in a comprehensive and thorough manner to best serve the needs of the entire county.

\$6,000,000 Road Bond Issue Planned.

Houston, Tex., August 19—[Special.]—It is hoped that a \$6,000,000 road bond issue will be provided for Harris County. Plans have been announced for 117 miles of concrete roads, 18 feet wide, which with the necessary culverts, grading, etc., will cost approximately \$45,000 per mile. A comprehensive program has been laid out so that if the bonds are voted the work can proceed immediately. It will first of all be necessary to provide a Harris County Road District by a two-thirds vote of the people.

\$375,000 Sheet Asphalt Contracts Let.

Gainesville, Fla., August 19—[Special]—Contract has been awarded the Hutton Engineering Co., for building sheet asphalt and asphaltic-concrete streets in this city to cost in the aggregate approximately \$375,000. G. H. Kairns, of this city, is the engineer in charge.

Notes on Good Roads Construction.

Pritchard, Raines & Hazelhurst, of Savannah, Ga., have been awarded the contract for building 7.5 miles of asphaltic-concrete highway in Sumter County, S. C., under the supervision of the Sumter County Permanent Road Commission, at a cost of \$210,000. Lee, Purnell & Murray, of Sumter, are the engineers in charge.

W. A. Leach, of Poplar Bluff, Mo., has been awarded the contract for a stretch of concrete highways 17 miles long, near Kennett, Mo., at a cost of about \$260,000. Work will be started immediately.

Seguin, Texas, Wants Cotton Mill.

The Chamber of Commerce of Seguin, Tex., desires to get in touch with parties interested in the establishment of a cotton or twine mill with the possibilities of cheap power from the Guadalupe river, which according to Clarence Walters, General Manager of the organization, has 125,000 horsepower potentially available. It is declared further that the river is capable of furnishing power for a string of cotton mills from Seguin to San Antonio, a distance of 35 miles.

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Old Spanish Trail Across Texas Nears Completion.

San Antonio, Tex., August 20—[Special.]—The Old Spanish Trail, (OST), across Texas is nearing completion. From the Texas-Louisiana line on the East, through Orange and Jefferson counties concrete roads are under construction. Liberty county, adjoining, has voted two million dollars in bonds to continue the concrete highway through the lowlands of its precincts to connect up with the gravel and shell roads

of Harris county.

Roads bonds have been voted in the district to build a concrete highway across the eastern part of Fort Bend county and the western part is planning a vote on a bond issue to build the gap and connect with the gravel roads of Colorado county which has just been completed. A bituminous topping is to be spread over this fine graveled



DAVIS MOUNTAINS ON THE TRAIL.

stretch of the OST to improve and preserve it.

A 15-mile stretch of the highway across a corner of Wharton county will soon be graveled with a bituminous topping, as the construction work now in progress is being pushed rapidly. Fine graveled roads are being built in Fayette county along



A BIT OF CONCRETE ROADWAY IN FAYETTE COUNTY, TEX.

the OST and will be opened to traffic during the next 60 days. This will connect with the graveled highway through Gonzales county, all except about six miles of which is completed.

With only seven miles to be completed in Guadalupe county where a new location for the roadway has been made a good gravel road with bitumionus topping connects up with the bituminous topped gravel highway through Bexar county, bringing the tourist into the land of the historic old Spanish Missions at the foot of the Hill country.

Leaving San Antonio over a paved road which extends into the hills and about four miles into Kendall county, good gravel and natural rock roads are encountered into Kerr county where fine gravel roads are under construction along the OST through the foothills and along beautiful streams and the haven of fishermen.

With 35 miles of standard gravel highway Kimble county is contracting for the balance of its roadway along the OST to be completed with gravel. Sutton county has recently sold its road bonds and will start work on that part of the highway as soon as engineers can complete the specifications.

Crockett county, with good natural gravel roads most of

the way across its borders is preparing to submit a bond issue to the voters for the improvement of this stretch of the highway.

Concrete drainage structures have been completed in Pecos



OLD SPANISH TRAIL AT MOSS POINT, MISS.

county which has fair gravel roadway built to standard eight years ago. This county will need an additional \$250,000 to complete topping this otherwise good road through the foothills of the Davis mountains in the rich Pecos valley.



Reeves county section of the highway is under construction and will be of gravel to connect with the completed gravel roadway through Culberson county and into Hudspeth county where the work now under construction will be completed soon.

El Paso county on the western border of the

MARKING THE TRAIL THROUGH state has long ago com-SAN ANTONIO.

pleted concrete and bite Old Spanish Trail to the

ulitic paving on the part of the Old Spanish Trail to the New Mexico line,

When these stretches of the Trail are completed it will be possible for the tourist and motor camping parties to cross Texas in greater comfort and enjoy to the full the natural beauty along the entire way.

The OST begins at Jacksonville, Fla., and runs parauel



BUMPER GATE NEAR OZONA, TEX.

To open gate—Ease bumper against right hand side of gate. Put car in second gear and when bumper comes in contact with gate, step on gas and shove gate same as if pushed by hand. This opens gate wide and allows time for car to pass through. Gate swings back into place by gravity.

with the Gulf Coast through Appalachicola, Pensacola, Mobile, Pascagoula, Ocean Springs, Biloxi, Gulfport, Pass Christian, Bay St. Louis and New Orleans, into Texas and on to the Pacific Coast. When completed it will be a magnificent highway nearly 4000 miles in length.

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MECHANICAL

New Floor Grating and Stair Tread.

A new floor grating and safety stair tread known as "Trussteel" is shown in the accompanying illustration and is about to be placed on the market by the Southern Fabricated Steel Co., 430 Brown-Marx Building, Birmingham, Ala., which recently perfected it. The design of the grating is based on the well-known principle of the truss, in which a load concentrated or applied at any point in a structure is at once transferred to the other members in it, so dissipating it over the entire unit and allowing the structure to carry the maximum load with the minimum use of material.

This class of product is finding widespread use in construction and industrial fields where it fills a long felt want. It



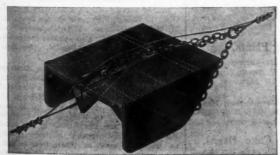
HOW THE GRATING LOOKS WHEN LAID,

provides floors, walkways, stairs and area covering upon which one may walk, work or place and move heavy loads with the greatest comfort and safety, yet it permits the free passage of light and air, and, it is further claimed for this grating, that it insures absolutely against slipping under any and all conditions. Besides being fireproof, it is rendered weather proof and rust proof in the process of manufacture.

The grating will be made in standard and conveniently sized panels or units consisting of a series of straight horizontal bars equally spaced, while in the spaces are other specially shaped bars which are crimped in the form of saw teeth and riveted or welded to the main members in such a manner that the cross crimps are all aligned, this forming in effect, transverse ribs at close intervals throughout the panel. This strengthens the material against the tendency to warp, sag or spring and also prevents buckling of the main members. Standards of sizes are arranged so as to best suit the needs and convenience of architects and engineers and the units or panels are convenient to ship, handle and arrange.

Improved Device for Handling Bulk Materials.

A new device, called a power hoe and made for use in storing and reclaiming bulk materials, has been developed



EMPTY POWER HOE ATTACHED TO CABLE.
and patented by the Link-Belt Company, Chicago, which
manufactures it. This power hoe, or improved drag scraper,

it is asserted, makes it possible to reclaim and store coal, gravel, sand, or other bulk substances at a very small cost per ton. The pictures herewith show it just as it appears and in use, many successful installations having been made.

A typical installation is one handling coal, which is received in railroad cars, dumped into a track hopper, delivered to an elevator and discharged to initial pile alongside of the railroad track. The hoe is moved back and forth by a steel cable, the ends of which are fastened to driving drums in an operator's house which is so arranged as to give a clear view of the storage area. The cable passes around sheaves so located as to serve the storage yard. The hoe is first pulled behind or on the side of the initial pile and when its direction of travel is reversed it is automatically filled and dragged to storage, discharging its contents as it begins a return trip. The empty hoe rides on top of the coal pile until it reaches the starting point when the cycle of operation is repeated. The entire storage area can be covered by occasionally moving the guide sheaves from point to point between back posts, or other anchorage, which must be located around the area to be served.

When reclaiming from storage the hoe attachment to tue



POWER HOE HANDLING COAL.

cable is reversed, thus moving the coal in the opposite direction to an elevator. In this way the coal is discharged into a hopper feeding an elevator boot, when it is elevated and delivered to a conveyor leading to the boiler room. It is to be noted that the hoe does not tend to dig in or bury itself in the material handled.

The entire equipment consists of driving machinery and drums, lead and balanced sheaves, scraper or power hoe, and a steel cable.

Commendations, Kicks and Comments

Believes Public Interest Should Be Protected.

BAKER & HOLMES Co., Jacksonville, Fla.—Don't you think now is the time to begin a movement for the passage of a law making it a misdemeanor for those employed by public service corporations to strike collectively, and thereby interfere with these industries serving the public?

We believe that you are the man to lead in this particular line of legislative reform.

Is This to Be a Government by Unions.

F. T. CARMACK, Insurance and Real Estate, Iuka, Miss.—I want to commend your editorial on the present situation. Is this United States to be a government by unions or are all the people going to take a hand? It is a tremendous question.

take a hand? It is a tremendous question.

I think it is time some organization was started which would compel the railroads and strikers alike to settle their disputes as you and I now settle ours, by law. I imagine such an organization would be strong enough to make our legislators (state and national) take notice.

I commend you for having backbone to state the truth.

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Construction Department

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the Manufactureine Recorn is published every business day in order to give earliest possible news about new industrial, commercial, building, railroad and financial enterprises ganized in the South and Southwest. It is invaluable to manufacturers, contractors, eigeneers and all others how want to get in touch at the earliest moment with new undertakings, or the enlargement of established iterprises. The subscription price is 320.00 per year.

Airplane Plants, Stations, Etc.

Fla., Baitow—Bartow Aeroplane Corp., in-corporated with E. C. Wilson, Prest.; John J. Swearingen, Vice-Prest.; Geo. Seymour,

Bridges, Culverts and Viaducts.

Ala., Mobile-Mobile County Board of Revenue and Road Commrs., let contract to Ed. Pettis, Montgomery, Ala., at \$5746.50, to construct bridge over Dog river at Earlville.

Ark., DeValls Bluff-White River Bridge Stuttgart, Ark., plans expending \$200,000 to build concrete and pile trestle draw bridge and approaches connecting DeValls Bluff and Memphis, Tenn.; Harrington, Howard & Ash, Engrs., Kansas City, Mo.; bids probably opened this month.

Fla., Fort Lauderdale-Broward County Commrs. will construct 2 steel highway For full details see swing drawbridges. Mchy. Wanted-Bridge Construction.

Fla., Jacksonville-For full details see Machinery Wanted-Bridge Construction.

Fla., Jacksonville-Duval County Commrs., let contract to J. A. Kidd, to construct two creosoted wooden bridges over New Castle Creek and South Pablo slough.

Ga., Augusta-City, will build 2 bridges. For full details see Mchy. Wanted-Bridge Construction

Ga., Savannah--State Highway Dept., Atlanta, Ga. will build concrete and steel bridge. For full details see Mchy. Wanted-Bridge Construction.

La., Covington-Chamber of Commerce interested in construction of causeway across Lake Pontchartrain from Mandeville to West End; U. S. Engr's office, New Orleans, La. supplied map with tracings of proposed

Missouri-State Highway Dept., Jefferson City, Mo., will build 3 bridges. For full details see Mchy. Wanted-Bridge Construction.

Miss., Gulfport-Harrison County Board of Supvrs., let contract for building concrete and steel bridge across Little Biloxi river on Mississippi Valley Highway, construction under supervision of State Highway Dept.

Miss., Vicksburg-For full details see Machinery Wanted Bridge Construction.

N. C., Lexington-For full details see Road and Street Construction.

N. C., Wilmington-D. D. MacMillan, Jr., Chrmn. of Joint Bridge Comm., contemplates building bridge over Cape Fear river connecting city with Eagle Island; plans under

Okla., Pryor—Mays County Commrs. will construct steel and concrete bridge across Grand River, near Strange; \$54,000.

S. C., Chester-Chester and Lancaster County Commrs., contemplate constructing bridge connecting the two counties, approx. cost

\$80,000; half of amount to be derived from Federal aid.

S. C., Gaffney-For full details see Mchy. Wanted-Bridge Construction.

Tex., Corpus Christi-Nueces County Commrs. plan immediate repair of surfacing on causeway; Moore Bros., Dallas, Tex., will probably receive contract.

Tex., Dallas-For full details see Mchy. Wanted-Bridge Construction.

Tex., Dallas-City proposes constructing addition to Oak Cliff viaduct; E. A. Wood, Engr., City Plan Comsn.

Tex., Eagle Pass-Eagle Pass & Piedras Negras Bridge Co., capital \$15,000, by William Hollis, O. S. Harper and J. D. Beck.

Tex., Fort Worth-For full details see Road and Street Construction.

Tex., Hempstead-Waller County, A. G. Lipscomb, County Judge, let contract to Southern Drydock & Shipbuilding Co., Orange, Tex., at \$16,000 for 200-ft, steel span bridge 4 mi. west of Hempstead : concrete piers on steel cylinders; Howe & Wise, civil Engrs., First National Bank Bldg., Houston, Tex.

Tex., La Grange-U. S. Bureau of Public Roads, Washington, approved plans to build 1200-ft. bridge over Colorado River in Fayette County, near LaGrange; Federal Aid Project No. 281; \$230,450; J. P. Ehlinger, County Judge; A. Schlafle, County Engr.

Tex., New Braunfels-For full details see Mchy. Wanted-Bridge Construction.

Tex., Sinton - J. C. Houta, San Patrico County Judge; submitted plans for proposed construction of concrete bridge over Baysor Creek on State Highway No. 9; approx. cost \$9000; A. C. Pancoast, County Engr., Beeville, Tex.

Tex., Waco-City will rebuild bridge in Cotion Palace Park, steel and concrete construction; also improve roadway and walks. Address City Commr. Hoffman.

Va., Portsmouth-For full details see Machinery Wanted-Bridge Construction.

Canning and Packing Plants.

Fla., Plant City-W. E. Lee & Co., capital \$500,000 incptd. with W. E. Lee, Prest.; S. E. Mays, V. P.; C. P. Simonton, Treas.

Clayworking Plants.

Oklahoma City-Bricks-Okla.. -Kenyon Brick & Tile Co., 2700 W. Tenth Sf., A. W. Kenyon, Prest. will install additional press, dry kiln and mixer.

W. Va., Morgantown-Morgantown Mantel & Tile Co., capital \$5000, incptd. by H. L. Winter, O. M. Herod, James Fancey.

Coal Mines and Coke Ovens.

Ala., Tuscaloosa-McNeil Coal Co., Bessemer, will construct tram road for handling

Ky., Louisville-Sackett Fuel Co., capital \$10,000 incptd. by M. G. Sackett, A. P. Sikking, John Roberts,

Tenn., Chattanooga-J. R. Barnes Coal Co., capital \$10,000, ineptd. by John R. Barnes, Geo. T. White.

Tenn., Harriman-Blanchard & Campbell Coal Co., capital \$5000 incptd. by N. C. Blanchard, F. F. Campbell.

Tenn., Nashville-Briton Mining Co., capital \$500,000, incptd. by J. W. Handley.

Va., Christiansburg-Merrimac Anthracite Coal Corp., increased capital to \$5,000,000.

Va., Honaker-C. W. Freeman Coal Co., capital \$125,000 ineptd. by Wm. B. Poindexter and others.

W. Va., Burch—Farley Coal Co., capital \$300,000, incptd. by W. A. Wilson and Alex. Bishop, Williamson, W. Va.; C. M. Roehrig, Huntington, W. Va.

W. Va., Charleston-Houck, Reidler Bros., capital \$400,000, incptd. by G. C. Houck, Oakland, Md.; G. W. Reidler, Tunnelton.

W. Va., Charleston-Kanawha By-Products Coal Co., capital \$5000, ineptd. by G. L. Guthrie, A. S. Jenkins, D. V. Orth.

W. Va., Charleston-Capitol Coal Co., capital \$5000, incptd. by G. L. Guthrie, A. S. Jenkins, J. W. Smiley.

W. Va., Cleveland-Cassingham Coal Land Co., capital \$200,000, incptd. by George W. Cassingham of Coschocton, O., C. L. Cassingham and F. L. Fuller, both of Cleveland.

W. Va., Glen White-E. E. White Coal Co., E. E. White, Prest. plans expending from \$200,000 to \$300,000 on improvements, including additional equipment, enlarge railroad trackage facilities, erect houses, etc.; portion of mehy, purchased.

W. Va., Monongalia County -- Fort Grant Coal Co., W. D. Reed, Fairmont, W. Va., W. T. Hughes, Morgantown, W. Va., purchased 173 acres of coal land.

Concrete and Cement Plants.

Md., Baltimore - Fourlock Tile Corp of Maryland, American Bldg., capital \$100,000, incptd. by Frank E. Holt, Harry W. Somers, Wm. L. Broman.

Cotton Compresses and Gins.

N. C., Wilmington-North Carolina Cotton Growers Assn, interested in establishment of cotton compress and warehouse.

Drainage Systems.

La., Jeanerette-Iberia & St. Mary Drainage Dist., L. Moresi, Secy., will dredge Iberia and St. Mary canals also old Delahoussaye canal either by yd. or mi.; also suitable dredge boat for this work; bids until Sept. 4. (See Mchy. Wanted-Drainage.)

La., New Orleans-Lafourche Drainage Dist. and State Engineer let following con tracts: to Lower Construction Co. portion of Stanton levee, at \$35,000; to Hercules Co. 295,000 cu. yds. of levee work in Madison Parish, \$73,000; to William Wrenn, 90,000 cu. yds. in Pikes Peak levee in St. James Parish; to E. S. Dutreux & Co., restoring 6000 cu. yds. wave wash in White Rose to Golemine levee, St. Johns Parish; to W. E. Geren, restoring 10,200 cu. yds. wave wash Glendale-Killona levee, St. Charles Parish; to E. W.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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Gravolet, to restoring wave wash for 2500 cu. yds, and placing revetment along 1000 ft. in Becknel levee.

Miss., Carrollton-Potacocowa Creek Drainage Dist. will construct 2.21 mi. ditch and 3.2 mi. levee in Carroll and Grenada Coun-8.2 m. levee in Carron and Grenada Coun-ties, 391,500 cu. yds. earth excavation and embankment; bids until Aug. 31; Morgan Engineering Co., Engr., 634 Goodwin Institute Bidg., Memphis, Tenn. (See Mchy. Wanted _Drainage.)

Miss., Marks-Lost Lake Drainage District Commrs. of Quitman County, let contract to A. V. Wills & Sons, St. Louis, Mo., at \$35,000 to construct 5 canals, floating dredge work; reclaiming 10,000 acres.

Miss., Marks-Pompey Lake Drainage Dist. Commrs. of Quitman County, will construct drainage system, 3,500,000 cu. yds. excavation, 650 acres; right-of-way clearing and 500 acres river bank clearing; bids within 60 days; W. R. Wallis, Engr.

Miss., Marks-Bush Outlet Drainage Dist. Commrs. of Quitman County, will construct drainage sysem; bids within 90 days; W. R. Wallis, Engr.

Electric Plants.

Fla., Apalachicola-City, F. B. Wakefield, Clk. will install two unit, 200 K.W. electric light and power plant, to be operated in connection with municipal owned water plant; power consists of one 100 and one 150 H.P. engine direct connected to generators; bids until Sept. 12. (See Mchy. Wanted—Light and Power Plant.)

Fla., Orlando—Geo. D. Moffatt, Gen. Mgr. of Public Utility Plants, opens bids Aug. 30 for constructing and improving electric and water plants.

Fla., Pelahatchie-City will build electric light and water works system; Swanson-Mc-Graw, Inc., Consit. Engrs., New Orleans, La.

Fla., St. Petersburg-City has site on 9th Ave. for erection of power plant; 10x101 ft.; brick and stucco; cost \$25,000; plans by W. S. Shull. (Lately noted voting \$300,000 bonds.)

Ga., Savannah-Hardy Electric Co. is lowest bidder at \$12,113 for installing white way on W. Bread St.

Ky. Louisville—Louisville Gas & Electric Co. will erect additional building on Washington St.

Ky., Louisville-For full details see Land

and water works system. Address The Mayor. (Lately noted.)

Miss., Utica—City will erect electric light system and improve waterworks; Swanson-McGraw, Inc., Consit. Engrs., New Orleans.

Mo., Kansas City-Kansas City Power & Light Co. former merger of Kansas City Power & Light Co. and Carroll Electric Co., will extend power transmission line from 4th and Holmes Sts. to site of Kansas City speedway.

Mo., Parnell-City granted franchise to Maryville Electric Light & Power Co., Maryville, for street lighting system.

Mo., Rich Hill-For full details see Water

N. C. Hobgood-City let contract to R. H. Bouligny of Charlotte, to construct transmission line from Scotland Neck and distribution of electricity in Hobgood.

Okla., Oklahoma City-Oklahoma Public Utilities Co. increased capital to \$5,000,000.

S. C., Lexington-Lexington Light & Power Co. increased capital to \$30,000.

S. C., Mayesville-For full details See Mchy. Wanted-Transmission Line, etc .--

Tex., San Benito-City will construct electric light and water plant; votes Aug. 22 on bonds. Address The Mayor.

Fertilizer Plants.

Fla., Bradentown - Manatee County Fertilizer Co., J. H. Humphries, Prest., let contract to J. C. Walden, for fertilizer plant; 58x108 ft.; wood, corrugated iron roof and sides; daily output 100 tons mixed fertilizer; cost about \$12,000; will install dry mixer, cost \$3000, purchased; Herbert & Mendenhall, Lakeland, Fla., Archt.

S. C., Spartanburg—Smith-Wilkinson Guano capital \$25,000, incptd. by Floyd T. Smith, J. C. Wilkinson.

Flour, Feed and Meal Mills.

Tex., Itasca-Itasca Flour Mills, capital \$30,000, ineptd. by C. E. Eiser, Y. H. Bivings, J. R. Griffin.

Foundry and Machine Plants.

Fla., Ft. Myers—Hendry Machine & Engineering Co., capital \$50,000, incptd. with Bard L. Hendry, Prest.; Lanier Hendry, Vice-Prest; W. F. Lusk, Secy.

Tenn., Nashville-Stoves-Gray & Dudley Co., will increase capital \$500,000.

La., DeQuincy—City will construct water works and light and power plant; votes Sept. 19 on \$120,000 bonds. Address The Mayor. Miss. Collins—City will issue \$440,000 bonds improve and extend electric light system to improve and extend electric light system.

Gas and Oil Enterprises.

Fla., Sarasota—Sarasota Gil & Gas Co., capital \$50,000, incptd. by John K. Cheyney, Prest.; Ernest Meres, Vice-Prest.; H. P. Anderson, Secy.

Ga., Thomasville- Community Oil Co., will erect filling station at Jackson and Madison Sts.

Hawesville-Oak Oil Co., increased capital to \$25,000.

Mo., Columbia-City contemplates purchase and improvement of Columbia Gas Works, votes Sept. 7 on \$100,000 bonds. Address The Mayor.

Okla., Tulsa-Burke-Greis Oil Co., capital \$100,000, incptd. by John F. Burke, New York, D. de Lace Greis and Henry N. Greis, both of Texas.

Tex., Beaumont-White Eagle Oil & Refining Co. of Kansas City, Mo. reported to locate \$250,000 oil export terminal.

Tex., Fort Worth-Fort Worth Gasoline Co., capital \$10,000, incptd. by J. L. McCown, P. F. Miles, C. L. Clarke.

Tex., Laredo-Ross Amigos Oil Co., capital \$250,000, incptd. by James F. Ross, W. C. Bob, Fred Marsh.

Va., Roanoke-Roanoke Gas Light Co. contemplates extending mains; approx. cost

W. Va., Huntington-Plutonian Oil, Gas & Mining Co., capital \$50,000, incptd. by B.J. Wieson, F. O. Renshaw, G. L. Brammer.

W. Va., Mannington—Marion Royalty Co., capital \$50,000, incptd. by H. V. Burt, P. H. Pitzer and L. S. Schwenk.

Hydro-Electric Plants.

Ala., Waterford-Houston Power Co., Newton, Ala., have preliminary permit from Federal Power Comsn. to construct 3000 H.P. hydro-electric plant; Southern Engineering Corp., Albany, Ga., Engrs.

Ark., Pocahontas-Central Power & Light Co., Walnut Ridge, Ark., reported, plans building dam on Elevenpoints river; Col. Laird, in charge of engineering corps.

Ice and Cold-Storage Plants.

Fla., Tampa-Co-ops Ice & Cold Storage Co. will rebuild burned plant.

Ga., Valdosta-Valdosta Lighting Co. will improve ice plant.

La., Baton Rouge—Baton Rouge Ice Co. will rebuild and double capacity of plant recently acquired; G. E. Wells, St. Louis, Archt.

Md., Sparrows Point, Branch of Baltimore Sparrows Point Ice, Coal & Lumber Co., ineptd. with \$600,000 capital, reported to es-

OPPORTUNITIES FOR NEW BUSINESS

THROUGH THE

DAILY BULLETIN

Manufacturers or Machinery and Equipment, Dealers in Railroad and Contractors' Supplies, as well as Architects, Contractors and Builders, find it very profitable to follow up the advance news furnished through our DAILY BULLETIN EVERY BUSINESS DAY IN THE YEAR. It is an authoritative, prompt source of information concerning every industrial and railroad undertaking of any consequence, and likewise all important building operations and municipal improvements in the whole South. The opportunity of getting in correspondence with firms that are in the market is afforded by a daily perusal of its columns.

MANUFACTURERS RECORD

BALTIMORE, MD.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

XUM

E. W. ed.

tablish plant to mfre. ice from artesian well water.

Miss., Crystal Springs—Crystal Springs Ice & Storage Co. will erect ice plant.

Mo., Joplin—James Redall Ice & Fuel Co., capital \$15,000, incpid. by A E. Krieger.

Okla., Sulphur—Artesian Tee & Coal Co., increased capital to \$30,000.

Tex., Fort Worth—Texas Ice & Refrikerating Co., capital \$400.000, incpti., by C. H. Zabe-Cetti, J. G. Bayrhoffer, of Fort Worth, A. H. Mills of St. Louis, Mo.

Tex., Houston—Texas Ice & Fuel Co., capital \$100,000, incptd. by N. L. Casperson, B. S. Beaman, A. J. Casperson.

W. Va., Charleston—Diamond ice & Coal Co. will install 160-ton refrigerating machine.

Iron and Steel Plants

Md., Sparrows Point-Bethlehem Steel Co., H. E. Lewis, Vice-Prest., Bethlehem, Pa., advises of the improvements to be undertaken at once as follows: Addition of one 250-ton tilting open hearth furnace to present No. 2 open hearth, making complete unit of five 250-ton open hearth furnaces and adding to present five 70-ton built stationary furnaces in No. 1 open hearth, four 100-ton stationary furnaces, increasing ingot output of plant by approximately 400,000 tons per year. Other expenditures consist of installation of 10,000 K. W. turba-generator with botter plant condensing system, etc., complete as auxiliary to gas engine station and providing additional power for addition ingot tonnage.

W. Va., Wierton—Wierton Steel Co. reported to let contract to Koppers Co. to construct by-product coke plant and moor fuel recovery plant; first battery will consist of 37 ovens with capacity of producing wore than 600 net tons of coke daily, from high volatile coal, work to be completed by summer of 1923; ultimately plant will consist of three batteries of ovens.

Land Developments.

D. C., Washington—District Balty Co., capital \$50,000, incptd. by M. C. Isiscoe, C. S. Shillingburg, Margaret Ritchie.

Fla., Jacksonville—Carlenter & Boons, Capital \$10,000 incptd. with J. W. Carpenter, Prest.; Jasper E. Stuart, V. F.; R. E. Boone, Secy.

Fla., Miami—C. J. Holleman Co., capital \$250,000 incptd. with C. J. Holleman, Prest; W. E. Walsh, V. P.; C. J. Holleman, Treas.

Fla., Miami—North Ho.lywood Co., capital \$200,000, ineptd. with J. W. Young, Prest; C. N. McCune, Vice-Prest.; E. Aller, Secy.-Treas.

Fla., Tavares—Florida Fern & Development Co., capital \$25,000, incptd. v.th Robt. E. Morrison, Prest.; H. C. Duncen, Vice-Prest.; Roy P. Hamlin, Secy.

Ga., Albany—Bedess Pecar Co., carital \$30,000, will develop 1700 acres in pecan trees.

Ky., Louisville—Kraft Bros. Realty Co., capital \$30,000, ineptd. by Edwerd A. and Theodore W. Kraft.

Ky., Louisville—Consolidated Realty Co., will develop 30 acres for sub-division; install electric lights, construct streets, etc.; Leslie W. Moorehouse, in charge.

Ky., Louisville-Wheeler Realty Co. will develop 64 acres for sub-division.

Tenn., Knoxville—Peter Ogden Cemetery Co., Charles L. Glass, L. C. Lamb will develop 28 acres for cemetery.

Tex., Corpus Christi—Arionas R. Roberts reported to develop 1882 acre tract of land for citrus fruit, etc.

Va., Norton—Middle Norton Land Corp., capital \$50,000 incptd. with H. C. Miller, Prest.; F. B. Kline, Sect.

Va., Richmond—Woodstock Home & Land Co., capital \$200,000 incptd. with Wm. T. Reed, Prest.; D. D. Fitzgerald, Secy.

Va., Roanoke—Commercial Land Co., capital \$20,000 incptd, with S. W. Harrell, Prest.; J. W. Herring, Secy.

W. Va., Huntington—Park Hills Land Co., capital \$25,000, incptd. by H. O. Dunfield, R. L. Archer, H. S. Irons.

W. Va., Wheeling—Virginian Realty Co., capital \$50,000 ineptd. by C. W. Hurt, C. H. Huffman, Logan, W. Va., Ernest Watkins and W. B. Whitney of Charleston.

Lumber Manufacturing.

Fla., Jacksonville—Florida Millwork Co., capital \$50,000, incptd. with A. B. Campbell, Jr., Prest.; L. A. Warren, Vice-Prest.; Edwin L. Fouts, Seey.

Fla., Jacksonville—Liberty Lumber Co., capital \$50,000, incptd. with H. W. Mixell, Prest.; J. R. Anderson, Vice-Prest.; C. H. Goodrich, Secy.

Ky., Montage (Perry County) — Stacey Lumbe & Supply Co., capital \$25,000, incptd. by J. R. Richards, J. C. Stacey and Mc-Kinley Stacey.

S. C., Batesburg—Brabham Lumber Co., capital \$5000, incptd. with S. G. Parler, Prest.; Robert C. Brabham, Treas.

Metal-Working Plants.

Ga., Augusta—Typesetting—Augusta Typesetting Co., capital \$10,000, incptd. by Joseph P. Sowers, John L. Sowers.

Ky., Louisville—Sanitary Can Co., capital \$10,000, incptd. by Lyman L. Hall, Latimer H. Long, Luther D. Boyd.

La., New Orleans—Rotating Cutter—Edmond Michel and E. H. Madere, 205 Whitney Central Bldg, interested in organizing company with \$100,000 capital to mfre. electric portable rotating cutting instrument for cutting corn sugar cane, etc.

La., New Orleans — Turner Construction Co., 244 Madison Ave., New York, has contract for constructing addition to American Can Co.'s plant; 200 ft. sq.; 4-story; cost about \$750,000.

Mo., St. Louis—Davis Boring Tool Co., will erect plant at corner Forest Park Blvd. and Spring Ave., to mfre. boring tools and reamers; 3-story; cost \$150,000.

N. C., Winston-Salem—Southern Yarn Conditioning Co., capital \$200,000, incptd. by A. A. Johnson, D. A. Ricks, Spencer B. Hanes; establish plant to mfre. attachment for cone winding machines.

Tenn., Chattanooga — Tableware — Chattanooga Plating & Smelting Co., capital \$50,000, incptd. by J. S. F. LaPerry, A. B. Maxwell, W. W. Wilbur.

Tenn., Knoxville—Knox Porcelain Co., \$370,000 incptd. with J. N. Houser, Prest.; O. C. Duyea, V. P.; W. Kelsey, Secy; has 5½ acre site in Lonsdale and will erect three unit plant for mfre. of standard electrical porcelain products.

Tex., Dallas—Southern Wire & Iron Co., increased capital to \$75,000.

Tex., Wichita Falls—Lone Star Tool Co., capital \$325,000 incptd. by S. J. Fenton, W. R. Hammond, L. E. Marlow.

Mining.

Fla., Orlando—Elk Horn Mining & Milling Company, capital \$100,000, incptd. with A. H. Klesier, Prest.; Joe M. McCormick, Vice-Prest.; Berta C. Klesier, Sec. & Treas.

Md., Frostburg-Frostburg Mining Co., cap-

ital \$50,000, incptd. by James Glenn Beall, Frank M. and Frank H. Spates.

W. Va., Huntington—Carbocite, Inc., capital \$250,000, incptd. with S. J. Hyman, Prest.; R. D. Lamle, V.P.—Gen. Mgr.; acquired aite, will erect pilot plant, operate oven by Piron process; materials purchased.

Miscellaneous Construction.

Ala., Gadsden — Lake — Gadsden Country Club let contract to Ike Gilbert for construction of lake covering area of 3 acres; earth constructed dam; contract also let for boring artesian well.

Fla., Daytona—City Commrs. let contract at \$9.40 per ft. to Charles K. Barnhart Construction Co. for constructing seawall from Orange to Live Oak Ave.

Fla., Jacksonville—Jetty—U. S. Engineers, Major Wm. C. Lemen, Officer in Charge is receiving bids for construction of extension of South jetty at mouth of St. Johns River; about 2300 ft.; cost approximately \$200,000.

Fla., Pensacola—Water Front Improvement—City, J. H. Bayless, Mayor, will expend \$100,000 on municipal dock improvements, including dredging, bulkheading, planking, track and rail extension and sheds; Frank Jarrett, City Engr.

Fla., Port Tampa City—City let contract at \$13,118 to Carman Contracting Co., Tampa, for constructing concrete piling seawall, 100x60ft., and for dredging channel.

Fla., Sarasota—Pier—City let contract to George Skene, Palmetto, for erection of municipal pier; 40 ft. wide, extending 700 ft. out into Bay from Gulf Stream Ave. seawall, with ell of 100 ft.; reinforced concrete piles; panelled concrete wall or balustrade; white way light installed at distance of 75 ft.; cost of pier \$75,000; pavilion and rest room will be constructed at cost of \$5000; contract for dredging let to Burns Dredging Co., Sarasota; Charles H. Johnson, Supvg. Engr.

Fla., South Jacksonville—Swimming Pool— Paul C. Marion, Prest. City Council, will construct swimming pool in City Park on Hendricks Ave.

Fla., Tampa—Channel Improvements—U. S. Lighthouse Service has appropriated \$40,000, for reconstructing beacons in Hillsboro and Tampa Bays.

La., Covington—Causeway—Chamber of Commerce interested in construction of 23 ml. earthen causeway across Lake Pontchartrain connecting New Orleans and St. Tammany Parish; width of causeway to be 150 ft. for highway and double track railroad; approx. cost several million dollars.

La., New Orleans—Fourth Mississippi Dist. Commrs. let the following contract for levee work in Mississippi River District; to Roach-Stansell-Lawrence Bros. & Co., Memphis, at \$106,930, for Weecama levee in lower Texas levee district; to Ogden & Lewis, Baton Rouge, La., at \$58,00, for Bennett levee in Atchafalaya district and at \$68,750, for Sims levee in Lafourche district; to Grounds & Laiche, Shreveport, La., at \$17,160, for Lucy levee in Lafourche district; to Keller Co., Baton Rouge, La., at \$22,915, for St. Elmo levee in Pontchartrain district; to Ezekiel W. Gravolet, Point a la Hache, La., at \$4016, for Rapp levee in Lake Borgne district.

La., New Orleans—Drainage Canal—State Highway Comsn., Sebastian Roy, Road Supervisor, contemplates constructing canal to drain Araba and surrounding section; construct canal 35 ft. wide; cost about \$35,000.

Mississippi River—Congress has appropriated \$6,870,000 for flood control work along the Mississippi River.

N. C., High Point—Memorial Monument— M. J. Wrenn interested in erection of bronse memorial monument, 18 ft. high.

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N. C. Winston Salem-Swimming Pool-Kiwanis Club, Thomas Barber Prest. interested in construction of swimming pool in East Winston; 100x60 ft; cement; C. M. Thomas Co. in charge of construction.

Ya., Norfolk—Channel—Government will

open bids Sept. 14 at office of U. S. Engr. for widening 10-ft. channel in Pagan River from James River to Smithfield, distance of 7. mi.; removal of 68,595 cu. yds. mud; will also dredge mouth of Cypress Creek in Pagan River to depth of 10 ft., covering area of about 1,100x250 ft.; \$40,000 appropriation.

Out of \$42,815,661 appropriated by Congout of warming the proposition of the control of the control of the costing \$10,000 or ever are included:

Delaware and Maryland—Inland Waterway,

from Delaware River to Chesapeake Bay, \$2,-

Maryland-Baltimore Harbor and Channels. \$300,000.

District of Columbia-Potomac River at

Washington, \$33,000. Virginia — Rappahannock River, \$21,600; Thimble Shoals Channel, \$300,000; Appomattox River, \$25,000; Paan River, \$25,000; Nansemond River, \$20,000; Norfolk Harbor, \$300,000.

Virginia and North Carolina - Inland Waterway from Norfolk, Va., to Beaufort Inlet, N. C., \$240,000.

North Carolina—Scuppernong River, \$15,-000; Pamilco and Tar Rivers, \$17,000; Neuse River, \$12,000; Beaufort Harbor, \$24,000; Inland Waterway, Beaufort to Jacksonville, N. C., \$20,000; Cape Fear River, above Wilmington, \$15,000; at and below Wilmingtion, \$200,000.

South Carolina — Winyah Bay, \$20,000; Santee River and Estherville-Minim Creek Canal, \$8000; Waterway from Charleston to Winyah Bay, \$10,000.

South Carolina, Georgia and Florida Waterway between Beaufort, S. C., and St. Johns River, Fla., \$55,000.

Georgia-Savannah Harbor, \$900,000; below Augusta, 10,000; Sapelo Harbor, \$12,000; Oconee River, \$19,000; Ocmulgee River, \$15,-000; Brunswick Harbor; \$200,000; Flint River, \$10,000.

Georgia and Florida-St. Marys River, \$12,000; Fernandina Harbor, Fla.

Florida-St. Johns River, Palatka to Lake Harney, \$50,000; Jacksonville to Palatka, \$30,000; Jacksonville to the Ocean, \$450,000; Indian River, \$10,000; Miami Harbor (Biscayne Bay) \$40,000; Key West Harbor, \$50-000; Kissimmee River, \$10,000; Calooshatchee River, \$25,500; Clearwater Harbor and Boca Ceiga Bay, \$14,000; Tampa and Hillsboro Bays, \$250,000; removing the water hyacinth from navigable waters, \$10,000; Apalachicola Bay, \$15,000; Upper Chipola River, from Marianna to its mouth, \$10,000; Channel from Apalachicola River to St. Andrews Bay, \$47,000; St. Andrews Bay, \$50,000; Pensacola Harbor, \$20,000.

Georgia and Alabama — Chattahoochee River, \$122,000.

Alabama-Alabama River, \$75,000; Mobile Harbor, \$300,000; Black Warrior, Warrior and Tombigbee Rivers, \$52,000; Tombigbee River from Mouth to Demopolis, \$32,700; channel between Mobile Bay and Mississippi Sound,

Mississippi-Pascagoula Harbor, \$25,000; Gulfport Harbor and Ship Island Pass, \$100,-000; Biloxi Harbor, \$10,000; Yazoo River, \$16,000; Tallahatchie and Coldwater Rivers, \$10,000; Big Sunflower River \$12,000.

Louisiana-Bayou Plaquemine, Grand River and Pigeon Bayous, \$20,000; Bayou Teche, \$50,000; Bayou Queue de Tortue, \$20,000; Calcasleu River and Pass, \$15,000; removing the water hyacinth (including Mobile District) \$30,000.

Texas and Louisiana-Cypress Bayou and

Waterway between Jefferson, Tex., and Shreveport, La., \$61,000. Texas—Galveston Harbor, \$90,000; Gal-

veston Channel, \$150,000; channel from Galveston Harbor to Texas City, \$100,000; channel to Port Bolivar, \$20,000 Houston Ship Channel, \$750,000; Turtle Bayou, \$10,000; channel from Aransas Pass to Corpus Christi, \$10,000; Freeport Harbor, \$50,000; Port Aransas, \$200,000; harbor at Sabine Pass and Port Arthur Canal, \$150,000 Sabine-Neches Canal, including Sabine River to Orange and Neches River to Beaumont, \$150,000.

Arkansas-Red River below Fulton, \$15,-000; White River, \$23,000; White River at

Augusta Narrows, \$14,000.

Arkansas and Louisiana—Ouachita and Black Rivers, \$345,000.

Arkansas and Oklahoma-Arkansas River, \$28,000.

Arkansas and Missouri-Black River, \$17 .-000

Mississippi River-Southwest Pass La. \$2,000,000 South Pass Channel, La., (maintenance) \$600,000; between Ohio and Missouri Rivers, \$915,000; between Missouri River and Minneapolis, \$1,000,000; removing snags and wrecks, \$25,000.

Missouri River—Kansas City to mouth,

\$100,000; Kansas City, Mo., to Sioux City,

Missouri-Osage River, \$15,000.

Tennessee and Kentucky — Cumberland River, below Nashville, \$425,000.

Tennessee River, below Riverton, Ala., \$160,000; Chattanooga to Riverton, except Browns Island to Florence, \$150,000; above Chattanooga, \$20,000.

W. Va., Shinnston - Coal Tipple - Hughes Coal Co., will rebuild tipple, increasing hauling and dumping facilities; \$15,000; construction by companie's forces; mchy. purchased; W. C. Hawkins, Engr., Fairmont, W. Va.

Miscellaneous Enterprises.

Ala., Mobile-Home Cafeteria Co., incptd. with W. P. Sims, Prest.; Milton Eichold, Secy.

Ark., Pine Bluff-Advertising Club, reported interested in organizing company with \$500,-000, capital to erect 10,000 bale mill.

D. C., Washington—Washington Opera Building Co., capital \$1,600,000, incptd. by Edouard Albion, M. Reid Yatts, M. S. Albion.

Fla., Arcadia—Arcadia Golf Club, capital \$10,000, incptd. with A. C. Polk, Prest.; A. L. Roe, V.-P.; J. W. Pelot, Secy.

Fla., Deland-W. C. Watts Hardware Co., capital \$50,000, ineptd. with W. C. Watts, Prest.: W. J. Page, Secy.

Fla., Jacksonville — Dairy — Palmer Dairy Products Co., will erect dairy plant; cost \$150,000; preliminary sketches by Greeley & Benjamin.

Miami-Donathan Building capital \$50,000, incptd. with C. R. Donathan, Prest.; A. M. Young, V.-P.; J. E. Young, Secy.

Fla., Miami—Hotels, etc., The Hermitage, capital \$25,000, incptd. with John T. Campbell, Prest.; Wilfred L. Cook, V.-P.; S. Grover Morrow, Secy.

Fla., Miami-Dillon & Dann Steamship Co., capital \$150,000, incptd. with Raymond M. Dillon, Prest.; E. P. Dann, V.-P.; H. L. Schaller, Treas.; establish freight and passenger service between Miami and Nassau.

Fla., Miami-Roger Carter, Prest. of Carter Sales Co. w'll publish radio magazine, also erect radio station.

Ky., Augusta-Ohio Valley Publishing Co. capital \$10,000, incptd. by T. E. Milner, H. V. Taylor, Charles L. Hook.

Ky., Covington—Fries & Son Steel Construction & Engineering Co., capital \$5000 incptd. by Daniel Fries, G. Fries.

Ky., Louisville-Community Family Laundry, capital \$13,000, ineptd by J. W. May, Jr., J. T. and Goodloe O'Neal.

Ky., Louisville-Peoria Union Stock Yards Co. increased capital to \$300,000.

Maysville-Washington Theater Co., capital \$15,000, incptd. by W. H. Cox, J. A. Dodson, A. G. Sulser.

Md., Baltimore—Tase-Norris Co., Calvert ldg., capital \$100,000, incptd. by Goucher Tase, Wm. B. Norris, J. Bannister Hall, Jr.

Miss., Crystal Springs—Publishing—S. H. Aby. Editor of The Meteor, will rebuite burned buildings.

Mo., Jefferson City-Highway Equipment & Material Co., capital \$25,000, incptd. with A. W. Graham, Prest.; A. T. Brown, Vice-Prest.; St. Louis, Frank J. Beard, Secy.-

Mo., Jefferson City-Road Construction-A. W. Graham, Prest. of company organized with \$27,000 capital to mfre. road building materials and supplies, bridges, etc.

Mo., Kansas City-Kansas City Southern Elevator Co. let contract to Folwell-Ahlsko Co. 323 N. Michigan Ave., Chicago, to erect 16 reinforced concrete storage tanks.

Mo., Linden-Dr. J. C. Young of Ozark, Mo., has 16 acres; will develop for summer resort; erect hotel and 12 cottages; construct 100 ft. dam.

Mo., Marshall-Greenhouses-Marshall Floral Co. let contract to American Green House Co., Chicago, to erect 2 greenhouses; steel construction; install boilers and heating equipment; cost \$12,000.

Mo., St. Louis-Pevely Dairy Co., will establish dairy on Union Ave.

Mo., St. Louis-Victorian Laboratories, 222 Victoria Bldg., (lately noted incptd.) organized with Carl G. Hinrichs, Prest.; Joseph S. Batt, Secy.; has building.

N. C., Charlotte-Southeastern Construction Co., capital \$100,000, incptd. by H. L. Taylor, Earle and N. A. Whitton.

N. C., Lexington-Lexington Hardware Corp., capital \$100,000, chartered by J. V. Moffit, P. M. Bernhardt, Jr., and J. D. Red-

Okla., Enid-South Side Country Club, capital \$50,000, incptd. by C. D. Roseman, W. A. Graves, P. C. Cowan.

Okla. Fairview-Major County Democrat Publishing Co., capital \$5000, ineptd. by L. W. Lowder, Ray A Bates.

S. C., Spartanburg — Electrical Supply — Odom's Battery Service, capital \$10,000, incptd. by L. A. Odom and Glenn Marton.

S. C., Woodruff-Woodruff Times, P. W. Smith, Editor, contemplates erect building.

Tenn., Greeneville-Fire Equipment-For full details see Water Works.

Tenn., Knoxville-Incinerator-For full details See Mchy. Wanted-Incinerator.

Tex., Dallas-Willard Davis Building Co., capital \$10,000, ineptd. by H. P. Willard, J. P. Davis, P. C. Lockett.

Tex., Dallas—Advertising—Adva-Talks Co., capital \$50,000, ineptd. by Mark A. Powers, R. J. Powers, F. N. Watsob,

Houston - Construction - Atlantic, Gulf and Pacific Co., capital \$100,000, incptd. with DeWitt D. Barlow, Prest.; L. T. Gaylord, of New York, Vice-Prest.

Wichita Falls - Printing -Printing Co., change name from Railey-Gillen-

Stromquist Co., increased capital to \$40,000. Va., Norfolk—Peninsula Highway Corp., capital \$10,000, incptd. with H. G. Barbe, Prest.; W. W. Roberson, Vice-Prest.; W. R. L. Taylor, Secy.

Va., Norfolk-Ficklen & Murphy Corp.,

capital \$25,000 inceptd. with Wm. E. Ficklin, Prest.; Sophie Abrams, Secy.

Va., Roanoke—Graves-Humphreys Hardware Co., increased capital to \$150,000.

Va., Waynesville—Wisely-Clark Construction Co., capital \$25,000. ineptd. with W. L. Wisely, Prest.; A. G. Beil, Scottsville, Secy.

W. Va., Charles Town—Charles Town Steam Laundry Co., capital \$5000, incptd. by H. S. Rideoiut, G. L. Taylor, P. P. Brooks, Jr.

W. Va., Huntington—Try-Me Transfer & Storage Co., capital \$10,000, incptd. by J. T. Stuart, C. F. and L. E. Bailes.

W. Va., Wheeling—Family Wash Laundry, capital \$25,000 incptd. by Dr. A. J. Harness, John Megliss, John A. Thomas.

W. Va., Wheeling—Luster I hoto Plays Co., capital \$50,000 incptd. by F. G. Stroehmann, C. H. Dowler, both of Wheeling, Robert Carson, New York.

Miscellaneous Factories.

Ala., Birmingham—Gulf States Chemical & Refining Co., incptd. with J. A. Moore, Jr., Prest.; J. M. Gilby, Jr., V.-P.

Ala., Florence—Florence Mattress Co., will establish plant.

Ga., Cairo—Farmers' Co-operative Cane Syrup Assn. will establish, plant, capacity 10,000 bbls. of syrup, storage warehouse capacity 20,000 to 25,000 bbls.

Ky., Dawson Springs — Overalls — Dawson Springs Mfg. Co., capital \$10,000, ircptd. by T. H. O'Bryan, C. B. Hall and T. H. Satterfield.

Ky., Harlan—Harlan Ice Cream Co., sucptd. by Ewing Wilder and John Howard both of Middlesboro.

La., Hammond—Hammond Dairy Products Co., O. F. Schleef, Mgr., will establish creamery.

La., Kentwood—Paper—Chamber of Commerce, H. A. Addison, Secy. interested in establishing mill for mfre. of paper.

Md., Baltimore—Metal Polish—Solarine Co., Emerson Bldg., H. A. Allen, Prest., will erect plant at Smallwood and Eagle Ets.; 100x150 ft.; fireproof; sprinkler system; plant output 40 cans per minute; cost of building, \$30,000; cost of equipment about \$25,000; plans by E. H. Glidden, American Bldg. (Lately noted.)

Miss., Vicksburg—Vicksburg Battery Co., capital \$10,000, incptd. by J. C. Hamilton, A. M. Feltus, Jr.

Mo., Springfield—Springfield Coca Cola Bottling Co., Edwin C. Rice, Prest., will erect building on Boonville Ave.; 60x160 ft.; field stone; fireproof; plate glass windows, bronze trimmings.

Mo., Webb City-Shoes-Preble Shoe Mfg. Co. will rebuild burned plant.

N. C., Charlotte—Drugs—Burwell & Dunn Co. will erect building at College and East Fourth St.

N. C., Greensboro—Davis Bros. Drug Co., capital \$75,000, incptd. by F. S. Petrea, W. B. and J. L. Davis.

N. C., Greensboro—Coronation Cigar Co., capital \$25,000, ineptd. by C. A. Crutchfield, J. T. Vaughn and C. R. Woodward.

Okla., Tulsa—Dave Keller Jewelry Co., capital \$25,000, incptd. by Dave Keller, and Harry Heilbron.

S. C., Anderson-McKay Ice Cream Co., will enlarge and improve plant.

S. C., Greenville—McKay Ice Cream Co., Anderson, will improve and enlarge plant.

S. C., Laurens—Laurens Glass Works, Albert Dial, Prest. will repair burned portion of plant.

S. C., Rock Hill—Rock Hill Steam Bakery, J. L. Bennett, Propr., will build burned plant.

S. C., Spartanburg—Dixie Cake Co., capital \$5000, incptd. with A. Geilfuss, Prest.; Wm. Attaway, V.-P.

Tenn., Knoxville—J. G. Sterchi will erect building at Commerce Ave. and Central St.; 3-story; 100 ft. sq.; brick and mill timbers; upper story of building to be occupied by S. Liebovitz & Sons; R. H. Graf & Sons, Archt.

Tex., Bay City-Mattress-F. M. Sutton will establish mattress plant at 7th St. and Avenue K.

Tex., Ennis—Soft Drinks—J. F. Houdek let contract to F. U. Lauderdale, Ennis, to erect plant; 30x80 ft.; brick; tar and gravel roofing; cement floor; cost \$10,000.

Tex., San Antonio—Italian Macaroni Co., increased capital to \$45,000.

Tex., Wichita Falls—Bellby Natural Gasoline Co., capital \$150,000, incptd. by O. J. McKnight, J. F. Darby, W. K. Campbell.

Va., Kenbridge—Kenbridge Redrying & Storage Corp., capital \$50,000, incptd. with W. M. Harris, Prest.; Thomas W. Ozlin, V.-P.; H. O. Coppley, Secy.

Va., Newport News—Candy—Big Bend Mint Corp., incptd. with Abe Goldberg, Frest.; Maurice Levy, Secy,

Va., Petersburg—Edison Pen Co., Geo. S. Bernard, Prest., increased capital to \$50,000.

W. Va., Clarksburg—Hoffman Shoe Co., capital \$100,000, incptd. by John Koblegard, J. W. Tracy and H. C. Hoffman.

W. Va., Clarksburg—New System Bakery Co., capital \$5000 incptd, by J. P. Brown, R. V. Snodgrass, H. L. Davis.

W. Va., Huntington—Stroehmann Baking Co., will expend \$100,000 in improvements to plant; extend building 250x100 ft.; install \$65,000 traveling oven.

W. Va., Wheeling—Inter-State Oxygen Co., incptd. by H. G. Beckett, G. H. Helfer and F. C. Niebergall.

W. Va., Wheeling—Zeigenfelder Ice Cream Co., capital \$125,000, incptd. by J. L. Zeigenfelder, J. A. Chambers, H. Leader.

W. Va., Wheeling—Nanine Products Corp., capital \$10,000, incptd. by Ripley Bowman. J. L. Kennedy, F. W. Wagner.

Motor Cars, Garages, Tires, Etc.

Ark., Ft. Smith—Paul Sheridan let contract to J. H. Reddick to construct 2 story, steel, concrete and brick addition; 72x140 ft.; cost \$35.000.

Fla., Jacksonville—Cooper Tire & Vulcanizing Co., capital \$5000, incptd. with L. H. Cooper, Prest.; Geo. Strath. V.-P.; C. Cooper, Secy.

Fla., Palm Beach—Palm Beach Cadillac Co., capital \$50,000, incptd. with H. C. LeMaster, Prest.; W. C. Critterden, Vice-Prest. and F. B. Annadown, Sec.-Treas.

Fla., Pensacola—Bay City Auto Co., capital \$5000, incptd. by Charles Libris, Merrell Henderson, J. E. Haynes.

Ky., Louisville—Embry Motors Co., capital \$15,000, incptd. by Wallace T. Embry, H. P. Roberts, J. E. Riddell.

Mo., Springfield—Alex Fellini let contract to J. A. Thompson for service station at Park and Boonville Sts.; cost \$33,000.

Okla., Oklahoma City—Oklahoma Chevrolet Sales Co., capital \$50,000 incptd. by J. E Parker, S. P. Render, A. M. McKinney.

Tex., Dallas—Mrs. J. N. Selcraig will erect garage at 1608-12 Illing St.; 1-story; brick and concrete;; cost \$23,000.

Tex., Dallas—Neece Automobile Co., change of name from Southwest Motor Co., increased capital to \$55,000.

Tex., El Paso—Auto Parts Co., capital \$50,000, incptd. by L. J. Trotti, T. B. Cunningham, E. D. Moore.

Tex., Robstown—Ligon & Ollre let contract to E. E. Hamon of Corpus Christi, for erection f garage for Robstown Motor Co.; 75x140 ft.; conerete and brick; fireproof; steel windows; cost \$15,000.

Va., Roanoke—Franklin Car Corp., capital \$25,000, incptd. with Charles F. Nelson, Prest.; B. M. Moore, Secy.

W. Va., Clarksburg—Camden Motor Sales Co., capital \$10,000, incptd. by F. C. Devericks, J. D. Owens.

W. Va., Huntington—Curtis Motor Co., capital \$50,000, incptd. by J. E. Curtis, E. H. Thornburg, H. T. Lavitt.

W. Va., Morgantown—Central Service Station, Kirk and Chestnut St. (previously noted inceptd., capital \$50,000) organized with H. L. Swisher, Prest.; Glenn M. Richardson, Mgr.; will erect 30 x 30 building, tile and stucco construction.

Railways.

Tenn., Campaign—Nashville & Atlantic Railroad Co., chartered to build a 12 ml. line out of Campaign to develop property of Rocky River Coal & Lumber Co., in Van Buren County, is reported to have begun construction.

Tex., Fort Worth—W. P. Welty, of the Southwestern Traction Co., which proposes to build an electric railway to Lake Worth starting at Rosen Heights, is reported saying that it is contemplated to finally extend the line to Arlington Heights, Weatherford and Mineral Wells, Tex., about 55 mi.

Railway Shops, Terminals, Roundhouses. Etc.

Va., Acca, P. O., Richmond—Richmond, Fredericksburg & Potomac Ry., W. D. Duke, Gen. Mgr., Richmond, has 200 acre site and will erect coaling station and locomotive terminal; bids being received for preliminary work of excavation and grading; construction to begin Sept. 1; cost about \$900,000; also reported contemplating constructing additional plant for shops now located at Bolton.

Road and Street Construction.

Ala., Bessemer—Chamber of Commerce interested in building chert road from Bessemer to Westfield.

Ala., Camden—State Highway Comm., Montgomery, Ala., will build 12.265 ml. Camden-Greenville road, Wilcox County; 28,800 cu. yds. gravel surfacing; bids until Aug. 29; W. S. Keller, State Highway Engr., Montgomery, Ala.

Ala., Mobile—Mobile County Board of Revenue and Road Commrs. let following contracts; to R. M. Perry to build road from Mt. Vernon Insane Hospital to Alabama river and E. P. Tomlin was lowest bidder for road from Dees store to Dawes.

Ala., Mobile-For full details See Mchy. Wanted-Paving and Sewer Construction.

Ala., Montgomery—State Highway Dept. received bids for 4.82 ml. paved type highway, 3 ml. of which is on Montgomery-Selma highway; low bidder Worthington & Co., Birmingham, Ala., at \$139,697.88.

Ala., Tuscatoosa—City Commrs. will pave with concrete following streets: 10th St. from Queen City Ave. to 14th Ave., 16th Ave., from 10th to 13th Sts., Broad St. from 27th to 28th Aves., and middle section along street car tracks of 24th, from 7th to 8th Sts.

Ark., Arkadelphia—City will pave square at 7th. and Main Sts. Address Mayor Newberry.

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Ark., Fort Smith-City. For full details see Mchy. Wanted-Road Construction.

Ark., Hot Springs-City will pave Central Ave. from Grand Ave. to Watt St.; C. C. Sparks, Chrmn. Dist. Commrs.

Ark., Jonesboro-Craig County Commrs., E. E. Randolph, Secy., will improve roads in Lake City, Nettleton and Bay, Road Improvement Dist. No. 1; 120,750 sq. yds. bituminous macadam surface course, penetration method, on old waterbound macadam base; 2000 cu. rds. reconstructed base course; bids opened Aug. 17; Klyce & Klackley, Engrs., 720 4th and 1st Bank Bldg., Nashville, Tenn.

Ark., Little Rock-Board of Commrs., Improvement Dists. 321 and 322, will pave Louise St. from Midland to Fairfax St., lay sewers on Midland from Markham to Lee; issued bonds.

Ark., Paragould-H. C. White, Alton. Ill. and others interested in completing 50 mi. gap in Transcontinental Highway, from Clay County line south to Paragould; estimates to

be made by State Highway Engr. Ark., Pine Bluff-For full details see Machinery Wanted-Paving, etc.

Fla., Kissimmee-Osceola County Commrs. will complete hard surface road to east county line on way to Melbourne.

Fla., Melbourne-City will pave streets, form new drainage districts; voted \$70,000 bonds. Address The Mayor.

Fla., Miami—City, let contract to Maule Paving Co., at \$62,061.82, to pave streets and avenues, and widen 5th St.; to Hunt Bros. Co., at \$10,591.20, to install sewage disposal plant. Address The Mayor.

Fla., Tavares-Lake County Commrs., will improve about 70 mi. road, fixed width of road from Astor to Pittman, Altoona, Umatilla, Eustis, Tavares, Astatula, Minneola, Clermont, South Clermont, and on to Polk County line. to 6 ft.; grade will be 24 ft., and surfacing 24 ft.; Lake County Park Comsn. will beautify highway, entire length.

Fla., West Palm Beach-For full details See Mchy. Wanted-Road Construction.

Ga., Athens-Clark County Commrs. will widen Lumpkin St. from Milledge to Caskey's; also refloor College Ave. bridge.

Ga., Augusta-Government will expend from \$15,000 to \$30,000 to improve grounds around Lenwood Hospital, consisting of driveways, roads and walks.

Ky., Louisville-For full details see Land Development.

Ky., Paducah—McCracken County, W. H. Potter, Chrmn., County Road Dept., let fol-lowing contracts: to E. L. Kelly for gravel-ing Brookfort ferry landing on Kentucky side and repair of Brookfort ferry roadway; to John Choice to gravel Irvin Potter Road, sector of Holt road.

La., Baton Rouge-East Baton Rouge Parish Police Jury, received bids to hard surface Bayou Sara road from city limits on North St. to Queller Ave.; Southern Roads Co., Birmingham, Ala., at \$76,090.92. low bidder on Warrenite bitulithic; Cressup Bros., Humboldt, Tenn., at \$85,742.20, for Warrenite bitulithic, at \$82,051.50, for asphalt con-

La., Homer-Louisiana Highway Comsn., Raymond Bldg., Baton Rouge, La., received bids from Drew Bros., Minden, La., at \$94,-635.50, for following:

8.5 mi. Homer Minden Highway; Section A. 4 mi. Homer-Farmville Highway: Section B; J. M. Fourmy, State Highway Engr., Baton

La., New Iberia-City, let contract to South. ern Roads Co. to pave St. Peter's St. with bithulithic.

La., New Iberia-Iberia Parish Board of Supvgs., Road Dist. No. 6, Paul Bassin, Sec'y., will build following roads:

Project No. 3B, 1.08 mi. Carpent road to Center St., to Peeble Coulee road.

Pro. No. 7, 2.16-mi. from New Iberia-St. Martin gravel road to Bryants to Daspit road.

Pro. No. 9, 1 mi. from Loreauville road to Morbuhan store the across Bayou in Merbihan plantation distance of 1 mi. Arpent road, 5 miles.

Maryland-State Road Comsn., 601 Garrett Bldg., Baltimore, will build 8 roads. For full details see Mchy. Wanted—Road Construc-

Md., Baltimore-State Road Comsn., 601 Garrett Bldg., let contract for concrete roads as follows:

Prince George's County, 1.01 mi. from Riggs school toward Hyattsville, to J. H. Blanford, Brandywine, Md., at \$26,158.

Cecil County, 2 mi. from Calvert toward Fair Hill, to Broad Creek Contracting Co., Elkton, Md., at \$54,386.

Frederick County, 2.03 mi. from near Middletown toward Myersville, to M. J. Grove Lime Co., Lime Kiln, Md., at 75.591.

Howard County, 2 mi. from West Elkridge to Pfeiffers Corner to Ward & O'Connel, New Amsterdam Bldg., at \$47,159.

Harford County, 1.89 ml. from Aberdeen toward Stepney, to Development & Construction Co., American Bldg., at \$55,543.

Worchester County, 1.72 mi, from Bishopsville to Bishop station, to Juniata Construction Co., Philadelphia, Pa., at \$44,445.

Montgomery County, .97 mi. Flower Ave. in Takoma Park, to Corson & Gruman, Washington, D. C., at \$26,517.

Garret County, 1.99 mi. from Gortner to Red House, to F. J. Dennison Co., Washington, D. C., at \$60,836.

Miss., Crystal Springs-City let contracts for opening and grading extension of Dampeer St., from Lea Ave. to Georgetown St., also laying concrete sidewalks. Address The May-

Miss., Fayette-Jefferson County, will build 6 mi. gravel road from city limits of Fayette to Harding Forks; voted \$40,000 bonds. Address County Commrs.

Miss., Forrest-State Highway Comsn., Jackson, Miss., have allotted funds for improving roads between Forrest and Morton, along Mississippi section of Dixie-Overland

Missouri-State Highway Dept., Jefferson City, Mo. will build 8 roads. For full details See Mchy. Wanted-Road Construction.

Mo., Bethany-City, let contract to Henry Sutton to pave Milles, 22nd., 14th and 15th

Mo., Bloomfield - State Highway Comsn., Jefferson City, Mo., let contract to Service Construction Co., Poplar Bluff, Mo., to build 15 mi. of 12 ft. road north and south through Pike township; work also includes building of 6 bridges; \$210,664.83; half of which is paid by Federal Government.

Mo., Cameron—City, contemplates paving Walnut St. from 3rd to 8th St.

Mo., Carterville-State Highway Comsn., Jefferson City, Mo., received bids for paving 3 blocks with concrete on N. Pine St. connecting with Carthage-Carterville Highway with Main St.; low bidder J. M. Barde, Carthage,

Mo., Carthage-City let contract to V. E. Koch to pave Central Ave.

Mo., Columbia-Cty let contract to Martin J. Raggs, Kansas City, Mo., at \$56,000, to pave 4 streets and improve streets in 4 districts. Address The Mayor.

Mo., Fayette-City, T. A. Grigsby, Mayor, let contract to C. L. Wright for concrete

Mo., Jefferson City-City. For full details see Mchy. Wanted-Paving.

Mo., Joplin-Southwest Missouri Railroad Co., E. J. Pratt, Gen. Mgr. will repair right of way portion of Byers Ave. from 1st. to E Sts.

Mo., Joplin-C. E. Williams, Monett, Mo., received contract to build about 4 mi. highway on Monett-Aurora Rd.; \$8,292.10.

Mo., Kennett-W. A. Leach, Poplar Bluff, Mo. received contract to build 17 ml. concrete highway; \$260,000.

Mo., Kirksville—City will pave Main St., bids opened Aug. 24. Address The Mayor. (See Mchy. Wanted-Paving.)

Mo., St. Charles-City let contract to Strubel & Helmick Contracting Co., Alton, Ill., at \$79,745.87, to pave, curb and gutter Clay St. Address The Mayor.

Mo., St. Joseph-City plans paving W. Valley St. from King Ave to Atchison highway. Address The Mayor.

N. C., Raeford-Board of Commrs., G. B. Rowland, Mayor, let contract to Dawkins Construction Co., Norfolk, Va., at \$48,085.20, to lay 15,000 sq. yds. asphalt pavement.

N. C., Charlotte-Mecklenburg County Highway Comsn., let contract to Noll Construction Co., at \$186,000, to build 7 mi. Yorkville rd., hard surfaced.

N. C., Greensboro-5th Highway Dist. will build approx. 10 mi, hard surfaced road between Leaksville and Reidsville.

N. C., Greensboro-Guilford County Commissioners let contract to R. G. Lassiter to build about 2 mi. Kivett road, east of High Point; hard surfacing.
N. C., Lenoir—V. D. Guire, Mayor, let con-

tract to Atlantic Bitulithic Co., Richmond, Va., at \$173,000 to grade and pave certain streets, including North and South Mulberry, Willow, Church, Boundary, Ridge and Vance, and College and Harper Aves.

N. C., Lexington-For full details See Mchy. Wanted-Road Construction.

N. C., Lumberton-Robeson County Commrs, plans building roads in Britt's township; will vote on \$20,000 bonds.

N. C., Murphy—Cherokee County Highway Comsn., W. C. Hamrick, Chrmn., contem-plates improving part of the Chesnee to Cliffside road; Charles H. Moorefield, State Highway Engr.

N. C., Shelby-For full details see Mchy. Wanted-Road Construction.

N. C., Waxhaw-Sykes-Collins, lowest bidder for building 1.4 mi, road through town, \$3200; J. B. Pridgen, Engr. of 6th Dist.. North Carolina Highway Comsn.

N. C., Wilkesboro-State Highway Comsn., Raleigh, N. C., let contract to Mulligan Construction Co., to gravel Jefferson Road from

Millers Creek to Ashe County line. N. C., Wilmington—Home Realty Co., let contract James Donnelly for laying sidewalks and streets in Westbrook Gardens.

N. C., Winston-Salem-Forsythe Highway Comsn, ordered surveys for following road projects:

Rural Hall to Germantown, 4.50 ml.

Kernersville to the concrete highway to High Point, 4.50 ml.

Moser's store to Clemmons, 4 mi. Kernersville to Wallburg, 6 mi.

Moser's store to Lewisville, 2 ml., Mr. Harmon. Engr.

Okla., Ada.—City will pave additional streets. Address The Mayor.

Ardmore-Carter County Commrs., Okla. will build 11 mi. Lee Highway connecting with Johnston County line \$85,000 pledged by Commrs., except Federal aid for same

Okla.. Hominy-City contemplates paying about 25 blocks; address City Clk. Parnell.

Okla., Muskogee-Muskogee County Commissioners plan building 17 mi. highway between Warner and the Muskogee-Haskell County bridge now under construction across Canadian River at Briartown, estimated cost \$180,000, Commrs. have approved plans for 11 mi. highway between Warner and Webber Falls surveys being made for 6 mi. road east of Fort Gibson on Fort Gibson and Tahlequal. Cherokee County road, approx cost \$30,000; 3 mi. of road between Muskogee and Spaulding bridge leading into Wagoner County, \$30,000; 6 mi. road between Boynton south to Council Hill, \$96,000; 2 mi. highway to close gap across Arkansas river near Frisco railway bridge, in Jefferson County; will have both Federal and State Aid.

S. C., Greenwood-Greenwood County Highway Comsn., contemplates building 5 mi. road from Ware Shoals to Shoals Junction.

S. C., Jenkinsville-Fairfield County Highway Comsn., 11th Township, B. H. Yarborough, Chrmn., let contracts to W. E. Ratchford, Carlisle, S. C., at \$40,000, to topsoil following.

4.147 mi. Monticello road from Little River to Jenkinsville.

3 mi. road from Alston to Jenkinsville; J. H. Moore, Engr., 31 Arcade Bldg., Columbia,

S. C., St. George-Dorchester County Highway Comsn. For full details see Mchy. Wanted-Road Construction.

S. C., Spartanburg—Spartanburg County Highway Comsn. applied to State Highway Comsn. for \$35,000 of Federal Aid to build about 2 mi. concrete road from city limits on S. Church St. toward Laurens by way of Moores, Switzer and Woodruff; remainder of road to be topsoil.

S. C., Sumter- Sumter County Permanent Road Comsn., will build 2 roads. For full details see Mchy. Wanted-Road Construction.

S. C., Sumter-Sumter Permanent Road Rd. Comsn., let contract to Pritchard, Raines & Hazelhurst, Savannah, Ga., at \$210,000 for 71/2 mi. Shiloh road; asphaltic concrete; Lee, Pennell & Murray, Engrs., Sumter.

S. C., Winnsboro—Town will improve streets; voted \$50,000 bonds. Address The Mayor.

Tenn., Manchester-Coffee County Commrs. plan building system comprising 4 roads, radiating from Manchester to the county lines: sold \$300,000 bond of the \$600,000 issue.

Tex., Abilene-City, let contracts to West Texas Construction Co. and Janes Cantracting Co. to pave 4 streets.

Tex., Athens-For full details See Mchy. Wanted-Road Construction.

Tex., Angleton-Brazoria County will complete State Highway No. 19-A, Dist. No. 19; plans voting on \$75,000 bonds. Address C. D. Jessup, County Judge., Angleton.

Tex., Austin-State Highway Dept., Austin, approved plans to surface 3.2 ml. State Highway No. 20. Travis County: stone base: 114in. bituminous topping; \$53,000; Geo. D. Matthews, County Judge; O. Leonard, County Engr.

Tex., Ballinger-U. S. Bureau of Public Roads, Washington, D. C., approved plans building 9.8 mi. State Highway No. 30 in Runnels County; Federal Aid Project No. 267; from Preston to Polk Aves.

\$65,310; Paul Tremonier, County Judge; U. Stephens, Engr.

Tex., Cameron-Milan County will build additional roads in Road Dist. No. 5; voted \$35,000 bonds; W. C. Gillis, County Judge, A. F. Mitchell, County Engr.

Tex., Clarksville-State Highway Dept., Austin, approved plans for 2.5 mi. State Highway No. 5, Red River County, from point 1 of Annona to Clarksville-Wills Creek road; gravel surface; \$18,000; J. R. Williams, County Judge; J. B. Rieman, Res. Engr.

Tex., Coleman-For full details See Mchy. Wanted-Road Construction,

Tex., Coleman-Coleman County will build 17.72 mi. 16-ft. gravel road on State Highway No. 7; Federal Aid Project No. 194; \$225,000; bids in about 30 days;

Ch. Engr. U. S. Bureau of Public Roads. Washington, approved plans for building roads on State Highway No. 23; Federal Aid asked for \$23,953; L. G. Matthews, County Judge; W. E. Dickerson, County Engr.

Tex., Corsicana-Navarro County Chamber of Commerce interested in petition presented to Commrs. Court, calling for election Oct. 14, for \$4,500,000 bonds for road building and maintenance fund of \$500,000: J. C. Beck, Chrmn., Permanent Road Committee, Frost, Tex.

Tex., Dallas-Dallas County Commrs, let contract to Tibbetts Construction Co. at \$71,506 to pave with gravel concrete 3 mi, of Seagoville road through White Rock Bottom.

Tex., El Paso-Martin Sweeney, Acting Mayor, offers city's co-operation to County Commrs. to widen S. Kansas St. along west side of courthouse.

Tex., Falfurrias-U. S. Bureau of Public Roads approved plans for 12 mi. 18-ft. caliche surfaced road on State Highway No. 12, Falfurrias-Reviera Road, Brooks County; Federal Aid Project No. 278; \$86,000; J. Brooks, County Judge; D. W. Hooper, Res. Engr.

Tex., Farmersville-City let contract to Plains Paving Co., 920 American National Bank Bldg., Wichita Falls, Tex., at \$35,610.20 to pave streets with 3-in. vertical fibre brick on 5-in. concrete base; 10,841.6 sq. yds.; 1193.6 lin. ft. combination curb and gutter; Montgomery & Ward, Conslt. Engrs., Wichita Falls, Tex. Address The Mayor.

Tex., Fort Worth-City let contract to General Construction Co. at \$4400 to pave Vickery Blvd, from Bessie to Sycamore St.

Tex., Fort Worth-A. R. Losh, Federal District Highway Engr. of The Bureau of Public Roads for Texas, Oklahoma, Louisiana and Arkansas, interested in improvements to Old Spanish Trail from Vinton, Calcasieu Parish, La., to Liberty County line in Tex.; improvements include bridge across Sabine river at Orange, jointly erected by Tex. and La.; 12 mi. road through Calcasieu Parish, etc.; recommended for Federal aid.

Tex., Georgetown-Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans for 5.4 mi. 16-ft. gravel road on State Highway No. 2. Austin-Taylor road through Hutto, Tex.; Federal Air Project No. 256.; \$73,000; F. D. Love, County Judge; R. A. Nichols, County Engr.

Tex., Groveton-Ch. Engr., U. S. Bureau, Washington, approved plans to surface 16.3 mi. State Highway No. 19, Trinity County, between Walker County and Houston County lines; gravel; Federal Aid Project No. 225 Fred J. Berry, County Judge, Groveton; W. J. Kelly, County Engr. Trinity, Tex.

Tex., Houston-City will repaye Millam St.

Tex., Houston-Harris County Commrs. plan building 117 mi. permanent road: contemplates voting on \$6,000,000 bonds in Nov.

Tex., Lockhart-Caldwell County Commrs. of Road District No. 7, plan building roads: contemplate \$20,000 bond issue.

Tex., Marshall-Ch. Engr., U. S. Bureau of Public Roads, Washington, D. C., approved plans for 14.3 mi. State Highway No. 8, from Marshall to Panola County line; \$129,900; W. H. Strength, County Judge; Geo. A. Mc-Clellan, County Engr.

Tex., Mineola-City let contract to Cocke & Turner, Marshall, Tex., to pave 5 blocks city street.

Tex., Orange-State Highway Dept., Austin plans building 5.9 mi. 18-ft. concrete paved road, Orange County, from Vidor to Jefferson County line; Federal Aid Project; \$278,885: E. S. McCarver, County Judge; J. E. Johnson, Res. County Engr.

Tex., Palo Pinto-State Highway Dept., Austin, Tex., approved plans for 10.9 mi, 18ft, bituminous macadam road on State Highway No. 1, Palo Pinto County, from Mineral Wells to Parker County line.

Also from Strawn, Tex., to Metcalf Gap; \$320,000; E. L. Pitts, County Judge; G. W. Courter, County Engr.

Tex., San Antonio-Bexar County let contract to Uvalde Rock Asphalt Co., 111 City National Bank Bldg., at \$13,004.42 to surface 2.23 mi. State Highway No. 9; 21,257 sq. yds., bituminous surfacing; Augustus McCloskey, County Judge; R. E. Killmer, County Highway Engr.

Tex., San Antonio-City plans paving Pecan St. from St. Mary's to Soledad St.; concrete base with asphaltic or bituminous surface; D. D. Harrigan, City Engr.

Tex., San Antonio-Bexar County Commrs. let contract for building 8.38 mi. Pearsall Road from Leon Creek to abandoned Artesian belt crossing, including drainage structures and bridges; concrete work awarded to W. T. Hutton & Son, and Uvalde Rock Asphalt Co., 111 City National Bank Bldg. for topping 79,301 sq. yds. with 1-in. topping surface; county allowed \$104,000 by Federal

Tex., San Marcos-Hays County Commrs. Court, J. R. Wilhelm, County Judge, let contract to Haden & Austin, Hill & Marsh Sts., Houston, Tex., at \$13,839.40 to surface 3.02 mi. State Highway No. 29-A, Martindale road; bituminous topping; 33,592 sq. yds.; J. M. Puckett, County Engr.

Tex., Sweetwater-City, Mayor Sheppard and F. M. Lockett, Nolan County Commr., contemplate building highway from city limits on north connecting with Fisher County Highway; apply for State aid; Harry C. Porter, District Engr., Dallas, Tex.

Va., Amherst-Amherst County Board of Supvrs., W. E. Sandridge, Clk. construct Fine Forks-Hicks road with county forces. Lately noted.

Va., Graham-For full details see Mchy. Wanted-Road and Street Construction.

Va., Lexington - Rockbridge County Supvgs. plans improving 3 mi. road between Lexington and Buena Vista extending from corporate limits of city to Liebig's gate.

Va., Lynchburg-City, let following contracts: To A. S. Miller, for sidewalks on Wise, 9th, 5th, Dearing and Wall Sta.; to D. F. Burnett & Co., for walls steps, concrete walls, etc., around new school house, \$6800; M. B. Younger, Engr., Dept. of Public Works.

Va., Portsmouth-J. P. Jervey, City Mgr., let contract to W. G. Lassiter & Co., Norfolk, Va., at \$109,000 for 26,000 yds. paving; granite and concrete curb and gutters.

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Mchy. County ad bextendlebig's

g conlks on ts.; to \$6800: Works. Mgr.,

orfolk, aving;

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W. Va., Clarksburg—City let contract to Anthony Flora at \$16,038. to pave streetway over West Pike Bridge from Point Comfort to Adamston. W. Va., Fairmont-City let contract to W. R. Bainbridge to pave alley between 2nd and 3rd Sts. with concrete; also have estimate on paving Maple Ave. between Norval and Baltimore Sts.; Shrewsbury B. Miller, City Engr.

Va., Richmond-City, contemplates follow-

ing improvements: grade streets and alleys

between Monument Ave., Roseneath Rd., Broad St. and West St.; \$18,260; pave Dun-

dee Ave. from Forest Hill Ave. to Midlothian

Turnpike. Address The Mayor.

Sewer Construction.

Ala., Anniston-City, Mayor Rudisill, will construct sewer system on various streets and extend present system to Tyler Hill, South Anniston to connect with Oxanna. Ala., Mobile-For full details See Mchy.

Wanted-Paving and Sewer Construction. Ark., Little Rock-For full details See Road

and Street Construction.

Ark., Pine Bluff-Board of Commrs. of Sewer District No. 20 let contract at \$52,000 to McEachin & McEachin, Little Rock, for sewer construction.

Fla., Miami-For full deails see Road and Street Construction

Ky., Paintsville-For full details see Mchy. Wanted-Sewer Construction.

La., Baton Rouge-For full details See Mchy Wanted-Sewerage Pumping Equipment.

La., Haynesville-City let contract at \$34,-919.55, to F. C. McClanahan, Homer, La., to install sewerage system.

Md. Baltimore-City, A. E. Christhilf, Highways Engr., opens bids Aug. 23 for sludge digestion tanks at Baltimore disposal plant; reinforced concrete, with capacity of 600,000 cu. ft.; M. J. Ruark, 311 Courtland St., Engr. in charge. (Lately noted.)

Mo., Kansas City-Board of Public Works approved ordinance for construction of Blue Valley sewer comprising 360 separate sewer districts covering about 22,000 acres in natural drainage area; at present time will construct sewer in north section; cost about

N. C., Taylorsville-For full details See Water Works.

Okla., Sand Springs-City will construct outlets to storm and sanitary sewers; voted \$90,000 bonds; Cloe Tingley, City Engr.; Holway Engineering Co., Conslt. Engr., 329 Kennedy Bldg., Tulsa, Okla. (Lately noted

Tenn., Greeneville-For full details see Water Works.

Tenn., Knoxville—City petitioned Legislature for \$50,000 for completion of sewer system in suburb of Oakwood and South Knoxville; L. Herbert Kidd, Engr.

Tex., Colorado-For full details See Water-Works

Va., Portsmouth-For full details See Mchy. Wanted-Sewer Construction.

W. Va., Mullens-City let contract at \$44,-000 to Amos Trainor of Huntington, for constructing sewer system.

Shipbuilding Plants.

Fla., Miami-Biscayne Yacht & Machine Works, S. Pearlman, Mgr. will expand plant and install equipment for construction of yachts and houseboats.

Telephone Systems.

Ala., Gadsden-Gadsden Country Club let contract to Electric Construction Co. to install radio receiving station.

Alabama—Southern Bell Telephone & Telegraph Co., main office, Atlanta, Ga., will improve system at Inglenook, Boyles and Tarrant City.

Ark., Little Rock-Suburban Telephone Co., capital \$50,000, ineptd. with M. L. Sachs, Prest.; D. K. Hawthorne, Secy.; will construct about 15 mi. of rural telephone lines.

Fla., St. Petersburg-West Coast Telephone Co., A. F. Lang, Prest., reported to expend approx. \$60,000 in improvements to plant; install \$38,000 switchboard, contract let to Kellogg Switchboard & Supply Co., Chicago.

Md., Salisbury-Chesapeake & Potomac Telephone Co. will expend \$13,150 for new equipment and improvements.

Miss., Crystal Springs-Lotterhos & Huber Co., will erect brick building to be occupied by Cumberland Telephone Co.

Textile Mills.

Ala., Tuscaloosa-Rosenau Hosiery Mills reported to rebuild and equip burned mill. Fla., Ft. Lauderdale—W. G. Carroll, W. Palm Beach and Chamber of Commerce interested in establishment of plant to mfre. rugs, rope twine, etc. from fibre.

Fla., Jacksonville-Excelsior Mills, capital \$100,000, incptd. with P. L. Thomas, Prest.; H. C. Bullard, V.-P.; Elinor Eames, Secy.

Ga., Millen-Western Reserve Cotton Mills Co. will expend about \$75,000 in additional

Ga., Mt. Airy-W. A. Smith has building and will install cotton mill machinery.

N. C., Burlington-R. G. Ausley interested in establishment of hosiery mill.

N. C. Durham-Marven Cotton Mill Co. purchased Lawrence Cotton Mills; will mfre. dress material; F. W. Gurry, Madison, Ga., Mgr.

N. C., Forest City—Hosiery—Alexander Mfg. Co., J. F. Alexander, Prest. has under construction 2 story, 50 x 125-ft. addition. increasing capacity by 4000 spindles; R. C. Biberstein, Engr., Charlotte, N. C.

N. C., Gastonia-Silk Ratines, etc.-Art Cloth Mills, lately noted incptd. with \$200,-000 capital, Henry D. Gagner, Prest.-Mgr., North Adams, Mass.; will erect mill; equip-ment will include 72 thirty-harness novelty looms.

N. C., Gastonia-Yarns-A. M. Smyre Mfg. Co., Fred L. Smyre, Prest. let contract to A. T. L. Smith to erect 2 story 125 x 300-ft. mill, No. 2, will install 15,000 spindles; R. C. Biberstein, Engr., Charlotte, N. C.

N. C., Granite Falls-A. A. Shuford Mill Co., Hickory, N. C. will erect \$100,000 mill.

N. C., Lenoir-Michael & Bivens, electrical engr., have contract at \$16,000 for installing electric equipment at Lenoir Cot-ton Mills, Hudson Cotton Mfg. Co., Whitnell Cotton Mills Co.

N. C., Randleman-Deep River Mills plant No. 1 will install 216 looms.

S. C., Bowling Green—Bowling Green Spinning Mill, C. N. Alexander, Gen. Mgr. let contract to Mr. Smith, Charlotte, N. C. to erect addition to mill, install several thousand spindles; also build several dwellings; increased capital to \$100,000; changed name from Reynolds Cotton Mills.

Paris-Priester Hosiery B. J. Priester, Mgr., Paducah, Ky., reported to erect \$50,000 plat.

Tex., Fort Worth-Chamber of Commerce Bldg., Dallas, Tex.

reported interested in establishment of cotton mill to manufacture fabric used in automobile tires.

Va., Phoebus—American Boy Stocking Mill, capital \$150,000, incptd. with John W. Grant, Prest.; James P. Grant, V.-P.; Eva C. Grant, Secy.

Water Works.

Ark., Fayetteville-City, will extend and renew water system, daily capacity 500,000 gals.; E. M. Ratliff, Engr. Address Jay Fulbright. (Lately noted.)

Ark., Little Rock—Board of Commissioners of Farrelly Lake Improvement District let contract at \$300,000 to McWilliams & Co., Memphis, Tenn., for flood gates at Bayou Metox (Lately noted).

Fla., Orlando-For full details see Electric Plants.

Fla., Pelahatchie-For full details see Electric Plants.

Ga., Atlanta-City, Frank N. Inman, Bond Comsn., contemplates increasing water works facilities by installation of 5 pumps with total capacity of 100,000,000 gals. daily; plans call for two centrifugal pumps for Hemphill water reservoir and three 15,000,-000 gal. pumps for Chattachoochie station; cost about \$500,000; also approved purchase of three 36-in. valves, one 13-in. valve, one 48-in. valve, cost \$10,000.

La., Baton Ruge—For full details see Mchy. Wanted—Water Works.

La., DeQuincy-For full details See Elec-

La., Lake Charles— City, J. A. Trotti, Mayor, plans extending water works system.

Md., Baltimore-Board of Awards let contract at \$57,000 to O. G. Ligon for digging 31/2 mi. ditch for water main of proposed reservoir on Reistertown Rd.

Md., Baltimore-Board of Awards, Wm. F. Broening, Prest. will extend water service to Venable Stadium for fire protection, etc.

Miss., Collins-For full details See Electric Plants.

Miss., Utica-For full details see Electric Plants.

Mo., Caruthersville-City will improve water works; vote Sept. 5 on \$25,000 bonds; Address The Mayor.

Mo., Rich Hill-City will install engine at water works and electric light plant; votes Sept 1 on \$20,000 bonds. Address The Mayor.

N. C., Taylorsville-Town let contract at \$63,418 to Electrical Constructors Co., Charlotte, N. C. for water and sewer systems also reservoirs, wells and equipment; Carolina Engineering Co., Wilmington, N. C., Engrs.

Okla., Barnsdall-City will vote Aug. 30 (change of date) on bonds for water works and filtration plant. Address The Mayor.

Okla., Oklahoma City-City let contract at \$282,700 to Tibbets & Pleasant, Tulsa, for purification plant.

Okla., Vinita-City will construct water system; will pipe water from Grand River at Ketchum, 12 miles distant; voted \$297,-000 bonds. Address The Mayor. (Lately noted.)

Tenn., Greeneville-City will improve water system, extend sewer system, improve and extend fire system; voted \$125,000 bonds. Address The Mayor. (Lately noted.)

Tex., Colorado-City let contract to W. C. Weeks, Arlington, Tex. to complete water works and sewer system; \$32,000. Myers & Noyes, Conslt., Engrs., 1100 Dallas State Bank

Tex., Denison—City will make water works improvements; D. C. Lipscomb, Engr.; voted \$50,000 bonds. (Lately noted.)

Tex., San Benito-For full details see Electric Plants.

Woodworking Plant.

Fla., Orlando-Pianos, etc.-U. G. Staton Co., capital \$50,000, incptd, with U. G. Staton, Prest.; Paul T. Davis, V.-P.; Ted L. Staton,

Fla., Tallahassee—Crates, etc.—Simmons & Trawick Crate Co., capital \$200,000, incptd. with J. M. Simmons, Prest.; H. D. Trawick, Secy.-Treas; Jack W. Simmons, install crate and box machinery. (Supercedes recent item.)

Ky., Louisville-Furniture-Home Kraft, incptd. by N. B. Chase, Milton Conrad and

Miss Jackson-C. W. Jones Furniture Co., capital \$50,000, incorporated by C. W. Jones, Chalmers Alexander, both of Jackson, J. W. C. Wright, New Orleans,

N. C., Elkin-Elkin Veneer & Mfg. Co, will rebuild plant lately noted burned; will install Corliss engine, etc. (See Mchy. Wanted-Engine; Shafting; Belting; Pipe.)

N. C., New Bern-Stahl Toy & Novelty Co., K. E. Stahl, Mgr. has building; mchy. installed excepting automatic lathe for mfre. of mechanical wooden toys. (See Mchy. Wanted -Lathe; Paint Room Equipment.)

W. Va., Huntington-Logan-Lewis Furniture Co., capital \$200,000 incorporated by W. H. Lewis, Samuel Samson, P. S. Lewis.

FIRE DAMAGE

Ala., Eufaula-School Building. Address Board of Education.

Ark., Pine Bluff-Tillar Light & Power Co. plant: loss \$7500; Stanley Williams, Mgr.

Fla., Jacksonville-Capital City Garage, 609 W. Forsyth St.; loss \$5000.

Fla., Ocala-Giles Cotton Co's. gin and moss factory.

Ga., Atlanta-I. V. Sutphin Paper Co's. building.

Md., Riderwood-Henry Y. Bready's residence on Joppa Road; loss \$15,000.

Crystal Springs-Three buildings owned by S. H. Aby, Editor of The Meteor and building occupied by Cumberland Telephone Co.

Mo., Ash Grove-Bridge of St. Louis & San Francisco Ry.; loss not estimated. Address G. F. Jonah, Chief Engr., St. Louis, Mo.

N. C., Durham-J. W. Chandler's store at Nelson.

S. C., Anderson-Gailev's E. E. & B. H. Hall. Propr.: loss \$12,000.

S. C. Laurens-Portion of Laurens Class Works.

S. C., Rock Hill-Rock Hill Bakery; loss

Tenn., Nashville-Jas. T. Jenkins' residence, Granny White Pike, Baxter Lane; loss

Tex., Austin-University of Texas' S. M. A. building; loss \$20,000.

Tex., Waxahatchie-Spaulding Co., and Enterprise Publishing Co.'s plants; total loss \$50,000.

Tex., Witchita Falls-Wichita Falls and Northwestern Ry.'s shops; loss \$125,000.

W. Va., Martinsburg-Woods & Minghini's garage; loss \$10,000.

W. Va., Piedmont-American Coal Co.'s tipple; loss \$60,000.

W. Va., Fayetteville-L. J. Dean, Hunting. ton, is preparing plans for bank building.

Building Assn. will erect 3-story office build-

Churches.

Ala., Saem-Christian Church, Dr. D. P. Taylor, Pastor, will erect building.

Ga., Americus-First Methodist Church Guyton Fisher, Pastor, will rebuild church lately noted burned; \$100,000.

Ky., Madisonville-Bldg. Comm., Basil M. Books, Chrmn., will erect building for M. E. Church; South; plans and specifications by Rev. J. A. Baylor, 1115 4th Ave., Louisville; bids opened Aug. 18.

Ky., Russell-Christian Church is considering erecting building; Rev. F. M. Stambaugh. Vanceburg, interested.

La., Carville-Louisiana Comm. American Mission to Lepers, H. J Vieth, Chrm. 840 Baronne St., New Orleans, will erect \$20,000 brick church at home for Lepers; Dowan & Schubert, Archts., 356 Fifth Ave., New York. (Lately noted.)

Md., Annapolis - Calvary Methodist Church will erect Sunday school building, North St. and State Circle; 2 stories; brick; also remodel church; H. P. Hopkins, Archt., 347 N. Charles St., Baltimore.

Md., Aquasco-St. Mary's Church, Dr. Harry M. Bowen and others, Bldg. Comm., will erect community hall.

Md., Baltimore-Evangelical Lutheran Church of the Ascension, Rev. A. G. Null, Pastor, will erect church, Sunday school and parsonage at 30th and Hugo Sts.; 2 stories; Gregg & Leisenring, Archts., 1320 New York Ave., N. W., Washington, D. C.

Md., Baltimore-Church of Our Savior Rev. T. C. Serge, Pastor, will erect building 33rd and Taylor Sts.; 50 x 100 ft.; 2 stories; stone walls; wood floors and yellow pine joists; slate roof; J. A. Dempwolf, Archt., Cassat Bldg., York, Pa. (Lately neted.)

Md., Baltimore-Keen Memorial M. P. Church will erect \$20,000 Sunday school and social building, Huntington Ave. and 30th St.; 45 x 40 ft.; 2 stories; brick stucco and wood; slag roof; wood floors; steam heat; E. G. Blanke, Archt., 213 N. Calvert St. (Lately noted.)

Md., Baltimore-Church of Our Lady of Pompei, Rev. Luigi Scialdoni, Pastor, at present Asst. Pastor, Church of Immaculate Conception, Mosher and Division Sts., will erect building at Claremont and Third Sts.; stone and brick; rectory; \$75,000.

Mo., Kansas City-St. Andrews Episcopar Church, 58th St. near Brookside Blvd., will erect building, Meyer Blvd. and Wornall Rd.; 36x70 ft.; frame or tile and stucco; shingle roof; oak floors; furnace heat; Ernest 0. Brostrom, Archt., 62 Reliance Bldg. (Lately

N. C., Salisbury-First Presbyterian Church will not erect building as lately reported.

N. C., Winston-Salem-First Baptist Church B. F. Huntley Chrmn. Bldg. Comm., will erect \$250,000 building; Herbert L. Cain, Richmond, Va., submitted sketches. (Previously noted.)

S. C., Columbia-First Baptist Church, Dr. T. Claggett Skinner, Pastor, 1515 Pendleton St., will erect \$30,000 addition; slate roof; steam furnace for whole building.

Tenn., Chattanooga-First Baptist Church, I. B. Merriam, Jr., Chrmn., Bldg. Comm., will erect Sunday school addition; 4 stories; accommodate 500; stone; W. H. Sears, Archt.

-Knoxville-Bell ress Mr Payne. (Lately noted.)

Tenn., -Knoxville—Bell Avenue Baptist
Mo., Poplar Bluff—Poplar Bluff Loan & Church. Rev. J. Allen Smith, Pastor, will

BUILDINGS PROPOSED

BUILDING NEWS

Apartment Houses.

Fla., Miami-Hansen & Bechard will erect \$60,000 addition to Martina Apts., S. Miami Ave.; 3 stories; 12 apartments and 12 hotel rooms.

Mo., Kansas City-Parkway Building Co. will erect \$30,000 buildings, 4510-12 Mill Creek Blvd.; 4 stories.

Mo., Kansas City-Leo O. Smith will erect \$20,000 apartment, 4019 Walnut St., 3 stories: brick.

Tex., Dallas-Mrs. K. Larsen wil erect \$22,000 building, 4036-38 Lemmon St.: 22 rooms; brick veneer.

Dallas-Isham erect \$14,000 building, 1520-22 Columbia Ave.; 2 stories; brick veneer; 4 suites.

Tex., Houston-Jno. B. Ashe will erect \$40,000 building; 50 x 80 ft.; 2 stories; reinforced concrete, hollow tile and brick; Giesecke & Harris, Archts., Littlefield Bldg., Austin.

Tex., Houston-Dr. C. A. Wallace will erect stucco building, Jackson St. and Lamar Ave.; \$16,000: 8 suites.

Tex., San Antonio-Chong Sing will erect apartment and store building, South Concho and Durango Sts. : 10 apartments : David A. Lown, Archt.; Woolery & Deats, low bidders at \$11,035. (Lately noted.)

Association and Fraternal.

Fla., Jacksonville—Scottish Rite Masons, L. H. Paxon, Chrmn. Bldg. Comm. will erect \$250,000 cathedral, Phelps and Hubbard Sts.; 36x140 ft.; H. W. Witcover, Archt., Savannah, Ga.; Roy A. Benjamin, Supervising Archt., Jacksonville.

Tex., Amarillo-Ancient Free and Accept-Masons plan \$300,000 temple. Address Chrmn. Masonic Executive Comm.

Tex., Fort Worth-Masonic Home School will erect dormitory for girls; \$140,-000; fireproof; L-shape,102 x 107 ft.; 2 stories and basement; brick and stone; Tudor architecture; Herbert M. Greene, Archt., Dallas; will erect additional dormitory later.

Bank and Office.

Fla., Orlando-State Bank of Orlando & Trust Co., L. L. Payne, Chrm. Bldg. Comm., erect 9-story building; \$300,000 to \$350,000; 60x90 ft.:steel frame or reinforced concrete; built-up roof; concrete floors; ornamental terra cotta; safes; vaults; wire glass; mail chutes; vault lights; ventilators; steam heat; electric lights; 2-passenger elevators; W. L. Stoddart, 9 E. 40th St., New York; bids opened about Sept. 15. Address Mr Payne. (Lately noted.)

building; brick and stone.

erect building; stone.

County Home.

Archts.

Mayor.

ley, Archt.

noted.

Park fire station.

estimates Sept. 7.

\$50,000.

provements.

erect Sunday school auditorium; 60 x 130 ft.; 3 stories; considering roof garden.

Tenn., Martin-Central Baptist Church,

Rev. C. G. Truitt, Pastor, will erect \$30,000

Tenn., Nashville-First Baptist Church,

Judge J. H. D. Stevens, Chrmn. Bldg. Comm., will expend about \$20,000 for im-

Tex., San Antonio—Utica Presbyterian Church will erect building, Mistletoe and Michigan Sts.; \$30,000; 46x83 ft.; reinforced

concrete frame; tile and stucco; pitch and

gravel roof; concrete and pine floors; ventura-tors; Jno. M. Marriott, Archt., 301 Oppen-beimer Bidg. (Lately noted.)

W. Va., Ethel—Methodist Episcopal Church, Rev. J. H. Dawson, Pastor. will

City and County.

Commrs. plan to erect hospital and barn at

Miss., Jackson—Armory—Hinds County Bd. of Supervisors called election Sept. 2, on \$60,000 bonds to erect armory in connection

with \$90,000 auditorium already authorized;

Mo., Kansas City-Stadium-City plans to

erect stadium; tentative drawings provide concrete structure; 780x100 ft.; seat 5200;

Root & Siemans and Selby H. Kurfiss, Asso.

Mo., Washington — Ciy Hall — City voted \$35,000 bonds for city hall. Address The

Tex., Corpus Christi-Library-City will

Va., Norfolk-Auditorium-City will erect

\$750,000 municipal auditorium, 9th 8t. near Granby St.; plans by Norfolk Society of Archts., Chas. J. Calrow, Sec. (Lately

W. Va., Fairmont—Fire Station—City, Wm. W. Conaway, Mayor, will erect East

Courthouses.

Fla., Tallahassee-Leon County Commrs. are considering erecting \$150,000 courthouse

or remodeling present structure; H. J. Klutho,

Archt., Jacksonville, will present plans and

\$100,000 courthouse to replace burned struc-

ture; fireproof; fireproof vaults. Address

Tex., Beaumont—Jefferson County Commrs. will erect 3-story addition to Courthouse;

Tenn., Jasper-Marion County will erect

erect \$11,000 library on Upper Broadway; 2 stories; top floor for auditorium; W. G. Buck-

auditorium to seat 5000. (Lately noted.)

County

Fla., Orlando-Home-Orange

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1922.

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Church rebuild 000. asil M M. E.

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Dwellings. Ala., Troy-Wm. Barnett plans residence on S. Brundidge St. Ala., Troy-O. J. Jackson, Searight, plans

residence on Park St. Ala., Troy-Rev. W. H. Tew plans residence

on S. Brundidge St.

Fla., Coconut Grove-Edwin H. George will erect 2-story Spanish type residence; hollow tile and stucco; tile roof.

Fla., Daytona-H. Marshall Gardiner will erect number of 6-room bungalows and small apartment building; stucco; built-up roofs; oak floors; plans by owner; day labor; one

Ky., Cloverport-Louisville, Renderson & St. Louis Ry., W. S. Moore, Engr., Louisville, plans to erect number of cottages, barber shop, bath houses, etc., for shop employees. | will erect number of dwellings, E. 9th, E. 8th,

Ky., Louisville—Episcopal Diocese of Kentucky, Christ Church Cathedral, will erect \$15,000 brick veneer dwelling, 4104 W. Chest-

La., New Orleans-Maurice Pailet, 413 Mocheca Bldg., will erect 4 double raised bungalows, Amelia and Liberty Sts.; \$14,000; 5 rooms each side; frame; composition roof; wood floors; plaster board; gas radiators: electric lights; owner builds.

Md., Baltimore.-Everett Peters, 2906 Winchester St., will erect 6 dwellings, 4932-42 Denmore Ave.; 2 stories; \$25,000.

Md., Baltimore—Westphal & Schoennals. Park Bank Bldg., will erect 12 two-story dwellings, 2601-23 Spring Hill Ave.; \$45,000; 15x57 ft.; Jos. F. Hirt, Archt., 829 N. Luzerne St.

Md., Baltimore-C. R. Bealmear, 501 Title Annex Building; eight 2-story, brick dwellings, 3301-15 Alto Ave.; 24x35 ft.; slag roofs; steam heat; \$18,000; Geo. Wessel, Archt., 2752 Winchester St.; owner builds.

Md., Baltimore-Alex, M. Lerch, 47 Rosekemp Ave., will erect 3 frame dwellings, Oakland Ave. near Latona Rd.; 11/2 stories; \$12,000.

Md., Baltimore-Lohmuller Bldg. Co., G. B. Lohmuller, Secy.-Treas., 3001 Greenmount Ave., will erect 20 daylight dwellings, 29th St. near Greenmount Ave.; \$60,000; 2 stories; brick; owner builds.

Md., Baltimore-Northwest Real Estate Co., Morris Bldg., will erect frame dwelling and garage, 3606 Grantley Rd.; also hollow tile dwelling and garage. 3310 Liberty Heights Ave.; both 2 stories; \$14,000.

Md., Baltimore-J. T. Roberts, 329 N. Gay St., will erect \$35,000 dwelling, Wendover Rd. near Charles Street Ave., Guilford; 41x 31 ft.; 21/2 stories; brick; 12 rooms and 2 baths; hardwood floors; slate roof; iron work; steam heat; 2-car garage; Roy G. Pratt, Archt., 323 N. Charles St., is taking

Md., Havre de Grace-M. Carroll, Carroll Laundry Co., will erect 2-story brick dwelling; 10 rooms; 2 baths; slate roof; H. B. Hopkins, Archt., 347 N. Charles St., Baiti-

Md., Pikesville-Dr. Bertram M. Bernheim will erect \$25,000 dwelling, Woodhome Ave., Pikesville; 2 stories; brick; 28x63 ft.; hot water heat; 10 rooms and 2 baths; Edw. L. Palmer, Jr., Archt., 513 N. Charles St.; bids opened Aug. 19.

Miss., Holly Knowe-W. B. Swain will erect \$75,000 residence.

Mo., Kansas City—Agee-Block Home Investment Co., will erect 5 dwellings, 407-15 Elmwood Ave. and 9 dwellings, 402-25 Lawn Ave.; \$4000 each.

Mo., Kansas City— A. J. King Realty o. will erect 8 dwellings, 5609-5707 Locust St.; \$4000 each.

Mo., Kansas City-Wm. R. Jewell, Jr., will erect 1-story brick dwelling, 4112 Troost St.; \$4000; also 2-story brick dwelling, 122-24 Southwest Blvd.; \$8000.

Mo., Kansas City—A. P. Nichols Investment Co. will erect 4 dwellings, 4816-20 Agnes Ave.; \$3000 each.

Mo., Kansas City-Mrs. Wm. I. Smith will erect \$25,000 dwelling, 5833 Ward Parkway; 2 stories; brick.

Mo., Kansas City-Collins Investment Co.,

and Chestnut Ave.; also 1-story frame store building, E. 9th St.; \$2000 each.

Mo., Kansas City-Geo. Hucke & Son will erect \$10,000 dwelling, 424 W. 61st St., and \$6000 dwelling, 6653 Linden Road.

Mo., Kansas City-Ricketts-Leonard Investment Co., will erect 5 dwellings, 5425-34 Drexel Way: \$3000 each.

Mo., Linden-Dr. J. C. Young, Ozark, will erect 12 cottages. (See Miscellaneous.)

Mo., St. Louis-Chas. S. Mueri, 3154 b. Grand Ave., will erect 20 two-family flats; brick, stone and plaster; Slate and tile roofs; hardwood floors; hollow fireproof and interior tile; ventilators; hot air and hot water heat; plans and consruction by owner.

N. C., Asheville-P. F. Conway will erect \$15,000 residence, Edwin Pl.; 8 rooms.

N. C., Asheville—Southern Land & Development Co., Judge J. D. Murphy, Prest., will erect several dwellings on Lookout Mountain near Grace, in connection with development.

N. C., Charlotte-J. P. Harris will erect \$10,000 dwelling, 416 Queens Rd.; 8 rooms; fireproof; brick veneer; state roof; hot air heat; F. L. Bonfoey, Archt.

N. C. Charlotte- W. W. Smith of Blair & Drane will erect residence on Providence Road, 7 miles from Charlotte.

N. C., Mountain Home—A. P. Avery, Prest., American Bank & Trust Co., St. Petersburg, Fla., and others plan to erect number of dwellings in connection development; asphalt roofs; pine floors; stove heating, etc.

N. C. Winston-Salem-N. L. Cranford will erect residence in Buena Vista.

N. C., Winston-Salem-J. Frank Morris will erect 12-room dwelling in Buena Vista; frame; Colonial type.

Okla., Oklahoma City—Sanders & Ogle will erect brick dwelling and garage, 1108 W. 20th St.; also frame dwelling, 105 E. 14th St.: total \$15,000.

Okla., Oklahoma City-W. A. Easley will erect dwelling and garage 300 W. 15th St.;

Okla., Oklahoma City-G. A. Nichols will erect 4 dwellings, W. 36th St. and W. 20th St.; \$5000 each; brick veneer.

S. C., Anderson-Jno. E. Sadler will erect residence on Boulevard.

S. C., Bowling Green—Reynolds Cotton Mill, C. N. Alexander, Gen. Mgr., will erect several dwellings in connection with mill enlargement; plans to change name to Bowling Green Spinning Mill.

S. C., Charleston-W. H. Powers purchased 82 lots at Rutledge Heights and plans to erect dwelling on each lot.

S. C., Gaffney-C. L. Chandler, Supt., Gaffney Mfg. Co., plans to erect several dwellings in addition to 2 under construction; 5 rooms; \$2500 each.

Tenn., Knoxville—Chas. Henck will erect dwelling, N. 4th Ave. near Wells St.; frame 7 rooms; R. F. Graf & Sons, Archts.

Tenn., Knoxville—Edgar P. Rutherford will erect \$14,000 dwelling, Armstrong Ave.; brick: 9 rooms.

Tex., Dallas-W. A. Jacobs will erect \$16,-000 dwelling, 3613 Cragmont St.; 8 rooms;

Tex., El Paso-H. P. Jackson will erect 2-story brick bungalow, block 28, Kern Place; 8 rooms; about \$10,000.

Tex., Fort Worth-Carb Building Co. will erect 12 dwellings, Arlington Heights; \$61,-

850; also 2 dwellings, Cheltenham addition; \$28,500.

Tex., Fort Worth—K. Muse will erect \$21,-000 dwelling, 121 Virginia Place; 10 rooms; brick.

Tex., Houston—O. B. Jollisant will erect residence and garage, Missouri St, and Van Buren Ave.; \$10,000; duplex; 2 stories; 10 rooms.

Tex., San Antonio—Mrs. J. D. Houston will erect \$15,000 dwelling, Kingshighway near Belknap St.; 2 stories; brick and tile; 8 rooms; C. B. Schoeppl Co., Archts. (Lately noted.)

Va., Roanoke—J. W. Hutchins will erect \$10,000 dwelling, King George Ave. near Fifth St.; brick and frame.

W. Va., Charleston-W. K. Bridges will not erect dwelling as reported.

W. Va., Glen White—E. E. White Coal Co., plans to erect miners' dwellings at Glen White and Stotesbury; \$75,000.

W. Va., Stotesbury—E. E. White Coal Co., plans to erect dwellings. (See W. Va., Glen White.)

W. Va., Wheeling—Edw. Schmeichel will erect \$14,000 dwelling at Lenox; 2 stories; brick.

Government and State.

Fla., Ybor City (Sta. Tampa)—Post Office—Sanchez & Haya will erect building for post office.

Hospitals Sanitariums Etc.

Fia., Orlando—Orange County Commrs. plan to erect hospital at County Home. (See City and County.)

Tex., San Antonio—Home Mission Board, Southern Baptist Convention, Dr. B. D. Gray, Secy., Atanta, will erect \$1,000,000 hospital; 4 wings, 2 central wings 70-ft. apart and others 50-ft. apart; construct central wings first; Will N. Noonan, Archt.; Dr. I. E. Gatza. First Baptist Church, Chrmn., Campaign Comm.; both San Antonio.

Hotels.

Mo., Linden-Dr. J. C. Young, Ozark, will erect hotel. (See Miscellaneous).

Mo., Springfield—A. J. Elsenmayer and F. X. Heer will convert Fraternity Bldg. into hotel; fireproof; 72 rooms; \$50,000; Heckenliveely & Mark, Archts.

N. C. Hendersonville—Bonclarken Hotel Directors, E. C. Stuart, Chrmn., Bartow, Fla., plan improvements, including erection of number of cottages, enlarging dining room,

S. C., Greenville—Wm. Goldsmith will erect \$700,000 hotel; 100x150 ft.; reinforced concrete, hollow fireproof tile and steel; tar and gravel roof; cement, tile and marble floor; metal cellings; ornamental terra cotta; interior tile; metal doors; steel sash and trim; ventilators; low pressure steam heat; electric lights; electric elevators; W. L. Stoddard, Archt., 9 E. 40th St., New York; plans ready in about 60 days. (Lately noted.)

Ky., Bowling Green—Lost River Hotel Co., M. H. Crump, Secy., Box 565, will erect first unit of hotel \$150,000; 200x60 ft.; hollow tile; stone trim; glass roof; concrete and hardwood floors; metal ceilings; plaster board; ornamental terra cotta; safes, metal doors; interior tile; vaults; rolling partitions; mail chutes; ventilators; steel sash and trim; electric heating and lighting; electric e levators; contract 30 to 60 days (Lately noted.)

Ala.; Birmingham—Molton Hotel, H. B. on main floor; swimming pool 78. New, Mgr., will expend \$15,000 to \$20,000 for alterations; change location of dining for 1000 lockers, special rooms, etc.

room from south end to north end of building. (Lately noted).

Miscellaneous.

Mo., Linden—Resort—Dr. J. C. Young, Ozark, purchased 16 acres of land and plans to establish summer resort; will erect hotel and 12 cottages; also construct 100-ft. dam to provide creek.

N. C., Brevard—Camp—T. J. Wilson and W. A. Baynard will establish camp site, construct artificial lake, etc.

Schools.

Ark., Biscoe (S. D. Fredonia)—School Trustees, W. A. Hardy, Sec., will erect brick school; 66.8 x 66.2; wood shingle and composition roof; concrete and wood floors Sanders Ginocchio, Archts., Urquhart Bldg., Little Rock, Address Mr. Hardy. (Lately noted.)

Ark., Waldo—Board of Education will erect \$50,000 high school; bonds available; Jno. P. Almand, Archt., Little Rock.

Ga., Atlanta—Board of Education will erect Ivy & Calhoun Merger School, Virginia Ave. replacement; Roach & Mitchell Merger, Summerhill School, Martin and Richardson Sts.; C. E. Frazier, Warren C. Powell, Chas. E. Choate, Berge, Burge & Stevens, Archts., respectively; A. Ten Eyck Brown, Supvg. Archt., Forsyth Bldg.; blds opened Aug. 25 at office J. N. Landers, Pur. Agt. (Lately noted.)

Ga., Athens—Board of Education will erect 2 buildings; Mrs. J. Phil Campbell, Dr. C. M. Strahan and Chancellor David C. Barrow, Committee to select plans; Mr. Barnett, City Engr. will supervise construction. (Previously noted).

Ky., Cleaton—Bevier-Cleaton School Board, B. E. Roll, Secy., Box 134, receives bids until Aug. 25 for addition to school building Bevier; lock and key job; 3 classrooms on ground floor, auditorium on second; brick and frame; 23x77 ft.; 2 stories; hot air heat; plans and specifications from Mr. Roll or Capelle & Troutman, Archts., 410 American Trust Bldg., Evansville, Ind.

Md., Baltimore—St. Paul's P. E. Church will alter building and erect additions for boys' school, Rogers Ave. and South Bend Rd., Mt. Washington; Smith & May, Archts., Calvert Bldg.; considering bids.

Md., Cottage City—Victor E. Peterson, 6 Ross St., receives bids until Sept. 5 to erect school; 1 story and basement; brick; 4 rooms; plans and specifications from C. M. Lightbown.

Miss., Collins—City plans to issue \$25,000 bonds to supplement fund available and erect \$30,000 school. Address The Mayor.

Miss., Magnolia—City voted \$11,000 bonds to erect primary school. Address School Board. (Lately noted.)

Mo., Mansfield—Board of Education will erect \$25,000 high and graded school; 2 stories; brick and stone; Earl Hawkins & Co., Archts., Springfield.

N. C., Concord—School Board, A. S. Webb, Seey., will erect \$150,000 high school building; plans ready about Sept. 15; bids opened about Oct. 1; also consider bids for colored school at later date; J. A. Cannon, Chrmn., Bldg. Comm.; C. Gadsden Sayre, Archt., Anderson, S. C.

N. C., Durham—Trinity College will erect memorial Gymnasium; basketball court, 50x 75 ft. and accommodations for 2000 spectators on main floor; swimming pool 75x25 ft.; spectators gallery; basement to provide space for 1000 lockers, special rooms, etc. N. C., Fairmont—School Trustees, F. C. Jones, Secy., will erect \$55,000 high school; brick and frame; concrete and wood floors; gravel roof; steam heat; electric lights; 19 classrooms, study hall, auditorium and playroom; W. D. Harper, Archt., Florence, S. C.; plans ready about Aug. 25 and bids opened about Sept. 15.

N. C., Murhpy—School Bd., R. C. Mattox, Chrmn., will erect building; Frank B. Simpson, Archt., Raleigh.

N. C., Orrum—School Trustees, I. H. Warwick, Chrmn., will erect \$23,000 high school; brick and frame; concrete and wood floors; gravel roof; steam heat; 11 classrooms; W. D. Harper, Archt., Florence, S. C.; bids opened about Sept. 20.

N. C., Raleigh—Raleigh Township School Comm., S. B. Underwood, Supt. for schools, 18½ W. Martin St., receives bids until Sept. 8 (extended date) to erect Thompson Elementary School; \$100,000; 160 x 130 ft.; T-shape; 2 stories; concrete, steel, brick, stone and hollow fireproof tile; Barrett roof; maple, tile, concrete and composition floors; ornamental terra cotta; steel sash and trim; 12 classrooms, auditorium and gymnasium; plans and specifications at offices C. Gadaden Sayre, Archt., Allen Bldg., Raleigh, and N. Main St., Anderson, S. C.; Chambers of Commerce, Raleigh and Charlotte; Builders' Exchange, Atlanta; obtainable from Anderson office of Archt. (Lately noted).

Okla., Grove—School Dist. voted \$32,-000 bonds to erect building. Address Dist. School Trustees.

Okla., Sand Springs—Board of Education, T. A. Lambreth, Prest., will erect school, Lake Station; Monnot & Reid, Archts., Oklahoma Ciy; bids opened Aug. 22.

S. C., Bamberg—Bamberg School Dist. No. 14 voted \$35,000 bonds to erect high school. Address Dist. School Trustees. (Previously noted).

S. C., Charleston—City Board of Public School Commrs., A. Burnett Rhett, Supt., Memminger School, receives bids until Sept 5 to erect vocational building on Chisholm St.; \$180,000; 3 stories; concrete frame; tile and brick walls; Barrett roof; pine, concrete and terrazeo floors; hollow fireproof and interior tile; ornamental terra cotta; metal doors; steel sash and trim; Warren Webster heating system; D. B. Hyer, Arch., Peoples Bidg.

S. C., Greenville—County Board of Education will erect \$25,000 school in Augusta Road community; district considering election on \$10,000 bonds to supplement \$15,000 raised through subscription; C. E. Hatch and others, Trustees. (Lately noted).

S. C., Lancaster—Board of School Trustees, Leroy Springs, Chrmn., G. W. Williams, Secy., receives bids until Sept. 6 to erect 3 buildings; separate bids for each building, 2 buildings, or 3 buildings; plans and specifications from J. Carroll Johnson, Archt., 1615 Richland St., Columbia, and may be seen at offices of Builders Exchanges, Columbia and Greenville; Chamber of Commerce, Charlotte, N. C., and Secretary School Trustees, Lancaster.

Tex., Commerce—City voted \$120,000 bonds to erect high school. Address The Mayor.

Tex., Dallas—Board of Education will convert Royal school at Royal and S. Akard Sts., into offices for board; \$10,000; Lang & Witchell, Archts.

Tex., Del Rio—Board of Education will erect school building; L. Harrington Co., Archts., San Antonio.

Tex., Fort Worth—Board of Education will erect school. 9th and Gay Sts.; \$17.775; frame: 8 classrooms.

Tex., Grand Falls-Grand Falls School

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Dist. No. 3 will erect \$14,000 school; bonds available. Address Prest. School Board.

Tex., Kerrville—Shreiner Institute plans to erect adminisration building, dormitory and president's home; \$100,000; English Tuder architecture; Clyce & Rolfe, Archts., Sherman; Wm. Ward Watkin, Asso. Archt., Rouston.

Tex., Lancaster—Independent School Dist. will erect \$35,000 high school; 40x100 ft., 2 stories; 50x70 ft., one story; brick; semi-freproof; gravel roof; cement, tile and wood floors; metal ceilings; plaster board; ventilators; steam heat, \$4500; electric lights; W. H. Clarkson, Archt., 715 Gaines St., Fort Worth; contract Sept. 15 to Oct. 1. Address W. B. McCurdy, Secy., Lancaster. (Lately noted.)

Tex., Taft — Independent School District will erect building; \$17,000 bonds available. Address Board of Trustees.

Tex., Rogers—School Board, R. J Reede, Prest., will remodel building; T. J. Galbraith and J. P. Hubbell, Asso. Archts., Slaughter Bidg., Dallas.

Tex., San Antonio—Board of Education will erect 13 schools and repair number of structures; Phelps & DeWees, Archts.—(Previously noted).

Tex., San Antonio—Harlandale School District No. 46, will erect building; \$30,000 bonds available; Adams & Adams, Archts. (Previously noted.)

Tex., Waco—Board of Trustees, B. B. Cobb, Secy., will erect additions and alter South Ninth St. School; Milton W. Scott & Co., Archts.; bids opened Aug. 25. Va., Williamsburg—College of William and

Va., Williamsburg—College of William and Mary will erect \$25,000 library; E. G. Swan, Librarian.

Va., Charlottesville — Virginia Beta, Inc., Frank P. Christian, Jr., Lynchburg, purchased building for fraternity house and will not erect building as lately reported.

Va., St. Paul—Lipps School Dist. will vote in September on \$75,000 bonds to erect schools at St. Paul, Bull Run, Riverview and Dry Fork. Address Dist. School Trustees.

W. Va., Charleston—Loudon District Board of Education, Quince Jones, Prest., will erect 4-room frame school buildings at Vandalia and Hernshaw; bids opened Aug. 19.

Stores.

Ark., Little Rock.—Boyle Realty Co., Boyle Bldg., will erect store and office building, Capitol Ave. and Louisiana St.; 3 stories; 101x103 ft.; fireproof; reinforced concrete; wood and concrete floors; hollow fireproof tile; ornamental terra cotta; Sanders & Ginocchio, Archts., Urquhart Bldg. (Lately poted.)

Fla., Miami—Chas. Beckwitt Optical Co., will erect building on N. E. First Ave.; one story; 2-story workshop in rear; install equipment, etc.

Fla., St. Petersburg—W. J. Cermak will erect \$12,000 store, Central Ave. and 8th St.; 1 story; brick and tile.

Miss., Crystal Springs—S. H. Aby will erect 3 two-story brick buildings to replace those destroyed by fire.

Mo., Kansas City-J. C. Nichols plans to erect business buildings at 47th St. and Mill Creek Parkway.

Mo., Kansas City—E. T. Wilder will erect 3-story business building, 1328-30 Walnut St.

Mo., Purcell—Farmers Supply Co., R. J. Pistel, will erect \$10,000 building.

N. C., Durham-J. W. Chandler plans to rebuild store burned at Nelson.

Tex., Dallas—N. O. Miller will erect \$15,000 brick store, 201-03 Collett St.; 1 story.

Tex., Houston—Howard F. Smith will erect \$18,000 building, Main St. and Webster Ave.; reinforced concrete frame, brick and hollow tile.

Tex., San Antonio—Alfred Duerier, Drs F. P. and Adolph Herff, will raise building at Travis St. and Avenue D and erect new structure; several stories.

Tex., San Antonio-Joske Bros. will remodel building, N. Alamo St.; \$10,000.

Va., East Radford—Jackson Building Corp. will erect \$40,000 building for M. Jackson Hardware Co., Norwood St.; 57×100 ft.

Theaters.

Va., Roanoke—A. F. Brooks and C. Tiffany Tolliver will erect moving picture theater, 109 Henry St., N. W.; \$15,000 to \$20,000; seat 1000.

Warehouses.

N. C., Kings Mountain-Victory Gin Co., will erect cotton warehouse; 1500-bale capacity.

N. C., Shelby—R. T. LeGrand, Supt., Shelby Cotton Mill, is promoting warehouse; 3000 bales capacity; install sprinkler system, etc.

Tex., Dallas—Raymond Caruth and others will erect \$550,000 warehouse, Young St. near Poydras St.; 250,000 sq. ft.; 290 x 191 ft.; 5 stories and basement; reinforced concrete; built-up asphalt roof; hollow fireproof tile; metal doors; concrete floors; steel sash and trim; passenger and freight elevators, \$10.000; Bertram C Hill, Archt.; bids opened about Sept. 10. (Lately noted).

Tex., Paris—Farm-Labor Union will erect warehouse.

Va., Abingdon—Abingdon Warehouse Corp. will erect tobacco warehouse, Main St., West Abingdon; 200x175 ft.; 1 story; concrete block.

BUILDING CONTRACTS AWARDED

Apartment Houses.

N. C., Charlotte—T. W. Gilbert; \$11,800 building, E. 7th St.; 2 stories; brick veneer and stone; hot air heat; 2 apartments; E. J. Berry, Contr.

Okla., Tulsa—Morris Dreyfus, Dreyfus Bros.; \$109,894 building, 11th and Denver Sts.; 3 stories and basement; 140x52 ft.; brick; terra cotta trim. 4 marble entrances; 28 apartments; M. C. Cross, Archt.; Shallenberger Construction Co., Contr.

Okla., Tulsa—Walter Ahlum, City Editor, Tulsa World; \$50,000 building, 1408 S. Denver St.; 44x57 ft.; 3 stories and basement; matt-faced brick; Bedford stone; 6 apartments; vapor heat; Murphy built-in beds; 4 fireproof garages in rear; J. J. Cooper Co., Archt.-Contr.

Tex., Waco—Gen. Felix H. Robertson; apartment house; 21 suites; C. Hillen Simmons, Contr., Dallas.

Association and Fraternal.

Okla., Tulsa—Tulsa Masonic Bullding Assn. 201 Roberts Bldg. erecting \$300,000 temple; 175x140 ft.; fireproof; reinforced concrete; gravel roof; concrete, hardwood and tile floors; plaster board; ornamental terra cotta; safes; ventilators; steam heat; \$27,000; electric lights, \$10,000; H. H. Mahler & Co., Archts.; sub-contracts. Address Owner.

W. Va., Rivesville—Knights of Pythias will erect building; Watkins & Co., Archts., 306 Cleveland Ave., Fairmont; L. F. Musgrove, Contr. for foundation. (Lately noted.)

Bank and Office.

Fla., Sanford—Puleston-Brumley Bldg. Co.; 2-story office building; frame and stucco; provision for 2 additional stories later; Mowbray & Uffinger, Archts., 56 Liberty St.; Geo. A. Fuller Co., Contr., Fuller Bldg., both New York

Mo., Neosho—First National Bank; remodel building; \$14,800; install fixtures; Roy G. Anderson, Contr.

Va., Alexandria—Citizens National Bank, remodel and enlarge building, King and St. Asaph Sts.; erect extension, making structure 46 x 82 ft.; upper floor extension to contain directors' and other rooms; install marble and bronze fixtures, screen work, plate glass, etc.; Jos. Evans Sperry, Archt., Calvert Bidg., Baltimore; W. P. Lipscomb Co., Inc., Contr., Washington.

Va., Richmond—Grace Street Building Corp., Edgar Allan, Jr., Prest.; \$350,000 building for Grace St. Bank & Trust Co.; 10 stories and basement; 60x100 ft.; steel, concrete, stone and brick; slag roof; concrete floors; Marcellus E. Wright, Archt.; Wise Granite & Construction Co., Contr.

Churches,

Ala., Boaz—Baptist Church; \$20,000 building; brick; auditorium to seat 500, exclusive of balcony; 10 classrooms; W. A. Horton, Archt.-Contr., receives sub-bids on all materials.

Fla., Tampa—Hyde Park Methodist Church; \$58,700 Sunday school building; 3 stories and basement; roof garden; F. J. Kennard, Archt.; T. B. Sherrill Co., Contr.; Chas. E. Ball, Chrmn. Bldg. Comm.

Ark., Little Rock—Poeple's Baptist Church, Rev. J. O. Johnston, Pastor; \$35,000 building, Scott and 6th Sts.; 70x100 ft.; W. A. South, foreman of construction.

Ark., Magnolia—Methodist Church; \$35,-000 church Witt, Seibert & Halsey, Archts.; Hinerman & Quillen, Contrs.; both Texarkana,

Ga., McDonough—Presbyterian Church, Rev. L. V. King, Pastor; remodel building; \$10,000; 50x80 ft.; 2 stories; wood and briek veneer composition roof; hardwood and cement floors; metal ceilings; rolling partitions; furnace heat; electric lights; H. B. Carmichael, Contr. (Lately noted at Ga., Juliette.)

Mo., St. Louis—Holy Rosary Catholic Church, Rev. D. J. Lavery, Pastor, will erect \$155,000 church, Margaretta and Clarence Aves.; stone; Norman Gothic type; Wm. P. McMahon, Archt.; Thos. O'Keefe, Contr.

N. C., Kernersville—Methodist Church, Rev. E. O. Cole, Pastor; building; auditorium, 36 x 55 ft.; Sunday school section, 28 x 54 ft.; 3 stories, including basement; plans by Church Bd. of Extension, Nashville, Tenn.; J. L. Crouse, Contr., Greensboro.

Tex., San Antonio—M. Adelman; synagogue; 50 x 100 ft.; brick and tile; tin roof; hardwood floors; ventilators; gas-steam heat; Jno. M. Marriott, Archt., Main and Quincy Sts.; Wagner & Schiffers, Contrs., at \$35,850.

Tex., San Antonio—Government Hill M. E. Church, South, E. T. Smith, Chrmn. Bldg. Comm.; \$50,000 church; 52 x 102 ft.; brick and tile; tar and gravel roof; wood floors; vacuum steam heat, \$2500; Ralph H. Cameron, Archt.; Will A. Orth, Contr.

City and County.

S. C., Walhalla-City Hall-City will erece town hall; first floor for fire equipment, second for jail, etc.; contract let. Address The Mayor.

Va., Richmond-Fire Station-City, Wm. Myers, Director of Public Safety, 306 City Hall; \$21,203 fire engine house, Ginter Park; brick; concrete and wood floors: steam heat: electric lights; Carneal & Johnston, Archts., W. H. Snyder, Contr.

Dwellings.

Ala., Selma-First Baptist Church; \$10,000 parsonage; 2 stories; hollow tile; Frank Hartley Anderson, Archt., Birmingham; D. R. Gilmore, Contr., Selma.

Fla., Jacksonville-J. Saffer; two \$6500 dwellings, one on Perry St. near Eighth St. and one on Eighth St. near Pearl St.: 2 stories : frame : I. Edelstein, Contr.

Fla., Miami-M. A. Milam; \$10,000 dwelling, 11th Ave. and S. W. 4th St.; concrete block; H. H. Mundy, Archt.; Wolf Construction Co., Contr.

La., New Orleans-Eureka Homestead Society; \$17,000 dwelling, Louisiana Ave. and Prytania St.; Jones & Roessle, Contrs.

La., New Orleans-Fidelity Homestead Assn.; \$8100 dwelling, Clinton and Commercial Sts.; Thos. H. Brockman, Contr.; also \$3650 dwelling, Nelson and Apple Sts.; August Hechler Contr.

Md., Baltimore-Wm. H. Klinefelter, 1829 Mosher St.; \$18,000 dwelling, 2702 Garrison Blvd.; 21/2 stories; 36 x 48 ft.; brick; slate roof . steam heat : plans by owner : Chas. L. Stockhausen Co., Contr., Gay & Water Sts.

Md., Easton-Glen Stewart; residence, guest house and garage, Fairview Point; \$100,000; Bradley Delehanty, Archt., 2 W. 45th St.; Stevenson & Cameron, Inc., Contrs., 37 W. 25th St.; both New York.

Mo., Kansas City-Long Construction Co. has contract to erect \$45,000 dwelling, 1228 W. 56th St.; also \$14,000 dwelling, 1230 Stratford Rd.

Mo., St. Louis—C. Oscar Lamy; English colinial dwelling, 1 Forest Ridge; 112.10x 40.6 ft.; stone, brick, tile and concrete; slate roof; concrete, tile and hardwood floors; safes; interior tile; metal doors; hot water heat; electric lights; Nolte & Naumann. Archts., 7th and Pine Sts.; sub-contracts. Address Geo F. Bergfield Investment & Construction Co., 610 Chestnut St.

N. C., Lexington-B. F. Sink; 10-room dwelling on State St.; G, W. Smith, Contr.

S. C., Columbia-Mrs. M. A. Coleman; \$11,-500 dwelling; brick veneer; composition roof; Robt. Eisenschmidt, Archt., Minnaugh Bldg.; D. A. Cannon, Contr.

Tex., San Antonio-R. B. Cherry; residence, Ellsmers Pl. near McCullough St.; \$15,475; 2 stories; brick and concrete; Adams & Adams, Archts.; V. L. Rasmussen, Contr.

Va., Fredericksburg-A. J. Grymes, New York; dwelling in King George County; Co lonial type; E. G. Heflin, Archt.-Contr., Fredericksburg.

Government and State.

S. C., Charleston-Post Office-Treasury Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C.; \$15,000 extension to workroom, mailing vestibule and driveway; hollow tile; reinforced concrete; Garber & Gissell, Inc., Contrs., Bethlehem, Pa.

Tex., Sweetwater-Post Office-J. H. Snell : brick building for post office; contract let.

Va., Richmond-Office Building-Board of Building Commrs., Jas. P. Jones, Secy., 1418 | Evergreen, Jr., Charles St.; Gothic architec-

E. Main St.; \$750,000 office building on Capitol Square; 8 stories; fireproof; Carneal & Johnston, Archts... Chamber of Commerce Bldg.: J. T. Wilson Co., Inc., contr. for foundation at \$25,100. (Lately noted.)

Va., Petersburg—Central State Hospwai; Dr. W. F. Drewry, Supt.; 2 brick annexes; \$15,000 : each 3 stories : 22x26 ft. : slate and metal roofs; wood, concrete and tile floors; extend present heating and lighting equipment; B. F. Keeler. Contr.

W. Va., Welch-Post Office-Dr. W. Hall: building for post office, Wyoming St.; W. Hancock & Sons, Contrs., Lynchburg,

Hotels.

Miss., Brookhaven-D. F. Gilly, Prop. Inez Hotel, will erect addition to building: 11 rooms: contract let.

Hospitals Sanitariums Etc.

La., New Orleans-Charity Hospital; onestory addition to Clinic Bldg. No. 1; three-story building adjoining; \$70,140; brick walls; composition roof; wood floors; interior tile; low pressure steam heat; electric elevator : Favrot & Livaudais, Archts., Hibernia Bldg.; R. P. Farnsworth & Co., Contrs., 810 Perdido St.

Railway Stations, Sheds, Etc.

Tex., Waco-San Antonio & Aransas Pass Ry. Co., L. Andrews, Ch. Engr.; \$200,000 freight depot; 40x130 ft.; 2 stories; reinforced concrete; metal roof; wharf, 12x350 ft : J. E. Johnson Construction Co., Contr.

Tex., Wichita Falls-Missouri, Kansas & Texas R. R., Frank Ringer, Chief Engr., St. Louis; freight house; H. D. McCoy, Contr., Cleburne.

Schools.

Ala., Montgomery-Board of Education, L. C. Cardinal, Chrmn.; 1-story frame colored grammar school, Davidson St.; \$18,381; Foshee Lumber Co., Contr.: also erect addition to Cottage Hill School; \$33,056; brick; tar and gravel roof; rift pine and tile floors; steam heat; electric lights; Bosworth Smith Contracting & Engineering Co., Contr.; Fred'k Ausfeld, Bell Bldg., Archt. for both structures.

Ark., Newport-School Board, W. T. Parish, Secy; addition to school; basement, 4 classrooms and auditorium; brick, wood interior finish: composition shingle roof: concrete and wood floors; low pressure steam heat; \$3321; electric wiring; ventilators; Sanders & Ginocchio, Archt., Urquhart, Bldg., Little Rock, J. P. Williams, Newport, Contr., at \$24.527.

Fla. Havana--School Board will erect annex to school building; 7 classrooms and auditorium to seat 500; steam heat; Miller Bros., Contrs., Cairo, Ga.

Ga., Atlanta-City Board of Education approved following contracts: Lucile Ave. School; Chas. H. Hopson, Archt.; W. P. Francis, Contr., \$174,165; Jennings-Gresham Co., plumbing \$9035; Loftis Plumbing Co., heating. \$22,234; Walter Electric Co., wiring. \$12,725; East Atlanta Annex; J. F. Downing, Archt.; R. M. Walker, \$82.416; Jennings-Gresham Co., plumbing, \$8250, and heating \$14,679; J. M. Clayon, wiring, \$10.825; English Ave. Annex; Daniel & Beutell, Archts.; Barge-Thompson. Contr., Plumbing Co., plumbing, \$127.527 : Loftis \$17,397 and \$15,208; A, Ten Eyck Brown, \$11.778; Smith & Guest, heating and wiring, Supervising Archt, Forsyth Bldg.
Md., Baltimore—Loyola College; chemistry

and biology building, first of 5 structures, at

ture; 64 x 147 ft.; 2 and 3 stories; stone. alternate on brick; slate roof; terrazzo floors; tile wainscoting; Otto G. Simonson, Inc., Maryland Casualty Tower Bldg.; Archt., Henry Smith & Sons Co., 7 E. Redwood St.

Miss., Cruger-Consolidated School Dist. Trustees; brick school; Raymond B. Spencer, Archt., Goodwyn Inst. Bldg., Memphis, Tenn.: S. W. Alford, Contr., Cruger.

N. C., Concord-School Board, A. S. Webb, Sec.: \$30,500 addition to Public School No. 2: C. Gadsden Sayre, Archt., Anderson, S. C.: Jno. R. Query, Contr., Concord; receiving bids for plumbing and heating.

N. C., Bryson City-Board of Education, F. W. Black, Chairman Bldg. Comm.; \$70,000 school; 134 x 125 ft.; T-shape; slow burning construction; rough texture face brick; stone and terra cotta trim; composition roof; maple floors; hollow tile and brick walls; talc blackboards; 16 rooms and auditorium, C. Gadsden Sayre, Archt., Anderson, S. C.; J. W. Stout & Co., Contrs., Sanford, N. C.

N. C., Charlotte-Board of School Comrs. H. P. Harding, Sec.; \$110,000 Second Ward school for negroes, Alexander and Stonewall Sts.; brick and concrete; fireproof; 30 classrooms; domestis science and manual training depts.; L. L. Hunter, Archt.; R. L. Goode Construction Co., Contr.; Toomey Plumbing Co., plumbing, \$4969.

N. C., Danbury-Quaker Gap School Dist. \$40,0000 building: Walter R. will erect Mitchell, Pilot Mountain, will supply building material. Address Board of Education.

N. C., Gibsonville-Guilford County Board of Education; \$53,000 school; 184 x 98 ft.; brick and hollow tile; Johns-Manville roof; wood floors; steam heat, \$3500; Mitchell & Hunter, Archts., Washington, D. C.; G. Larsen, Contr., Burlington, N. C.

N. C., Wadeville-Board of Education will erect \$35,000 school; 80x120 ft.; brick: gum or pine floors; electric wiring; hollow fireproof tile; ornamental terra cotta; rolling partition. Address C. C. McKinnon, Wadeville, or J. W. Stout & Co., Contrs., Sanford.

Okla., Muskogee-Board of Education: \$19.595 addition to Edison School; Hoffman & Wilsox, Contrs.; 14,600 addition to Houston school; Manhattan Construction Co., Contr. : 2 rooms each.

Tenn., Coal Creek-Board of Education: high school building; 12 classrooms, home economics and manual training depts.; auditorium to seat 1100; Manley & Young, Architects, Knoxville; Godley & Baker, Contra., Jellico.

Tenn., Obion-School Board; \$20,000 building; 53x64 ft.; brick and frame; composition roof; maple floors; steam heat, \$2500; city lights; W. E. Gore, Archt., Paducah, Ky.; Forcum-James Co., Contr., Obion.

Tenn., Rockwell-Board of Education; high school; rough texture brick and stone; Tudor type: gymnasium, laboratories, home economics and manual training depts.; also erect colored grade school; total \$60,000; Manley & Young, Archts., Knoxville; V. L. Nicholson,

Tex., El Paso-Sisters of Loretta, Loretta, Ky.; \$550,000 college; 3 buildings; 3 stories; reinforced concrete; clay tile roof; concrete, oak, maple, marble, tile and composition floors; hollow fireproof and interior tile; ornamental terra cotta; metal doors; vaults; rolling partitions; ventilators; Dunham system of Heat; Trost & Trost, Archts., El Paso. Address Jos. E. Morgan, Contr., El Paso.

Tex., Goose Creek-Ind. School Dist.; 4 school buildings; \$148,000; brick; gravel roof; wood floors; steam heat; C. H. Page & Bro., Archt., Austin ; J. De Puy, Contr., Bedell Bldg., San Antonio.

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Tex., Kenedy-School Board; remodel building; John Blaise & Son, Contrs.

Tex., Nacogdoches—Cchool Board, Dr. A. A. Nelson, Prest.; \$50,000 high school addition; C. H. Page & Bro., Archts., Austin; Jno. Hablin, Contr., Nacogdoches; H. C. Hatch will supervise construction of woodwork.

Va., East Radford—State Normal School for Women; \$66,000 dormitory; 45.10x101.10 ft.; stone and brick; slate roof; reinforced concrete, pine and tile floors; hollow freproof tile; metal doors; steam heat \$7000 to \$8000; electric lights, Chas. M. Robinson, Archt., Richmond; Hoback & Painter, Contrs., Pulaski and Radford.

Stores.

D. C., Washington—C. C. Willard Est.; \$75,000 building, 1310-12 F St., N. W.; 50 x

100 ft.; steel and frame construction; brick; Indiana limestone trim; Tudor-Gothic design; Marsh & Peters, Archts.; H. F. Boryer, Contr.

Md., Baltimore—George G. Mohlenrich, 303 President St.; \$20,000 store and restaurant, 134-36 W. Fayette St.; 45x68 ft.; 2 stories; brick and steel; steam heat; slag roof; concrete and wood floors; Wm. Gordon Beecher and Smith & May, Asso. Archts., Calvert Bldg.; Thos. Hicks & Son, Contrs., 106 W. Madison St.

N. C., Lexington—Fitznugh B. Harmon; business, office and bank building, Court Square and Main St.; \$65,000; 2 stories and basement; fireproof; brick, steam and concrete; W. C. Northup, Archt., Winston-Salem; L. S. Bradshaw, Contr., Salisbury.

N. C., Reidsville—Chas. A. Whitsett; \$55,-000 store and office building; 100 x 100 ft.;

2 stories; fireproof; reinforced concrete; Bsrrett roof; composition and hardwood floors over concrete; hollow fireproof and interior tile; metal doors; wire glass; vault lights; ventilators; steel sash and trim; gravity steam heat, \$3000; city lights; Harold Macklin, Archt., Winston-Salem; R. L. Goode Construction Co., Contr., Charlotte.

N. C., Winston-Salem—R. J. Reynolds Realty Co.; \$48,000 store and office building; 23 x 100 ft.; 5 stories; fireproof; reinforced concrete; Barrett roof; concrete and hardwood floors; ornamental terra cotta; Webster modulation steam heat, \$4000; dity lights; Otis passenger elevator, \$6000; Harold Macklin, Archt.; Fogle Bros. Co., Contr.

W. Va., Bluefield—Samuel Turk; \$18,000 store; 25 x 69 ft.; 3 stories; brick and iron; tin roof; wood floors; steam heat; M. H. Pedigo, Archt.: R. E. Edwards, Contr.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Boilers, Etc.—City of Poteau, Okla., Earl Wyatt, Clk.—Bids received until Sept. 4 for all or part of the following: 2 35 H. P. boilers, heater; 1 pump, 9"x14"x814,"x15", 8" suction and discharge; 1 pump, 14"x814,"x-15", 8" suction and 6-in. discharge; 3-6-in valves: 2-8-in valves.

Boilers.—Perry-Mann Electric Co., W. M. Perry, Prest., Columbia, S. C.—Prices on boilers with or without stack; second-hand equipment, consider new if immediate delivery.

Bollers.—White Oak Corp., Box 1094, Knoxville, Tenn.—Scotch Marine type boiler, 100 H. P. ro more, prefer 125 H. P.

Boller.—John M. Greene, (Mchy. Dealers) Drexel Bldg., Phila., Pa.—1 used locomotive type boller, 25 or 30 H. P., complete with engine mounted, in good condition, carrying pressure suitable for use in Penna.; state condition, make, size of driving pulley and R. P. M. of engine.

Boilers.—Blackford County Commrs., Hartford City, Ind.—Bids until Sept. 4 to furnish 2 boilers; cast iron sectional smokeless downdraft header type, 1500 sq. ft. steam heating and radiation; specification on file at office of W.C. Hghes, County Auditor.

Bridge Construction.—Norfolk County Cmsn. of Roads and Streets, 414 New Bern Bldg., Portsmouth, Va.—Bids until Sept. 1 to construct bridge across western branch of Elizabeth river, known as West Norfolk Bridge; R. B. Preston, Engr.

Bridge Construction.—E. F. Lipscomb, Cherokee County Supvg., Gaffney, S. C.—Bids until Sept. 7 to construct approaches to bridge over Goucher creek, on Green river road; materials all furnished.

Bridge Construction.—Chas. E. Gross, Dallas County Auditor, Dallas, Tex.—Bids until Aug. 28 to construct one steel span bridge at Duck Creek on Belt Line Rd., Dist. No. 2, also furnish and erect bridge at Rowlett Creek on Sachse Road; plans with Nagle, Witt & Rollinse, Courthouse, Dallas.

Bridge Construction.—Broward County Commrs. H. G. Wheeler, Chrmn., Fort Lauderdale, Fla.—Bids until Sept. 5 to construct 2 steel highway swing draw bridges; bridge No. 1 across the Florida Intracostal canal on the line of the Pompano Beach roads, near Pompano, Fla. and Bridge No. 2 across same waterway on line of Dania Beach road, near Dania, Fla.; plans on file with Frank A. Bryan, Clerk; H. C. Davis, Engr.

Bridge Construction.-City, Streets and

Drains Committee, Augusta, Ga.—Bids until Sept. 5 to build following: Green St. Bridge, over 3rd level of canal

Green St. Bridge, over 3rd level of canal near Margaret Wright Hospital; 20-ft. clear span; 100-ft. long.

Jackson (8th) St. Bridge, over 3rd level of canal; 20-ft. clear span; 60-ft long; plans, etc. from W. H. Wise, City Engr.; J. W. Westworeland, City Clerk.

Bridge Construction.—State Highway Dept. Jefferson City, Mo.—Bids opened Aug. 22 for following:

Benton County, State Aid Project No. 2090; 20 ft. reinforced concrete bridge over branch of Turkey creek, concrete abutments; 18 ft. roadway; A. C. Linley, Div. Engr., Reliance Bldg., Kansas City, Mo.

Clark County, State Ald Project No. 171;30 ft. reinforced concrete, 3 girder span, 18 ft. roadway bridge on State road from Alexandria westwardly; 2 mass concrete abutments, over Hill Slough ditch; Harry D. Griffith, Div. Engr., Hannibal, Mo.

Bridge Construction.—State Highway Dept., Jefferson City, Mo.—Bids opened Aug. 23:

Clark County, State Aid Project No. 171; 18 ft. reinforced concrete bridge, slab span, 18 ft. roadway bridge, 2 mass concrete abutments over drainage ditch; Harry D. Griffith, Div. Engr., Hannibal, Mo.

Bridge Construction.—State Highway Dept., Atlanta, Ga.—Bids until Sept. 7 for bridges and fills across Savannah River between Georgia and South Carolina, near Savannah; Ga. and S. C. Federal Aid Project No. 286; 5669 lin. ft. bridges; 18,708 lin. ft. earth embankment; 6653.74 cu. yds. concrete decks, bents and piers; 10,065.56 lbs. steel reinforcing; 240-ft. steel swing span complete; plans, etc., from C. H. Moorfield, State Highway Engr. of South Carolina, Columbia; State Highway Engr. of Georgia, Atlanta, or Division Engr. Savannah.

Bridge Construction. — Warren County, Board of Supvgs., Vicksburg, Miss.—Bids until Sept. 8 to contruct concrete and steel bridge over Big Black river, on Baldwin's Ferry Highway, between Vicksburg and Raymond; plans on file with Chancery Clk. or with H. R. Rhodes, Highway Engr.

Bridge Construction.—Duvall County Commissioners, Chas. A. Clark, Chrmn., Jacksonville, Fla.—Blds until Sept. 1 to construct an earth fill road-way approach to proposed Julington Creek Bridge near Hoods landing; about 10,235 cu. yds. fill, plans with Frank Brown, Clk., Room 101 Court House.

Bridge Construction.-City of New Braun-

fels, Tex., F. C. Blumberg, Mayor.—Bids until Sept. 7 to construct reinforced concrete highway bridge across Comal river, on San Antonio St.; plans with Terrell Bartlett, Engrs., Calcasieu Bldg., San Antonio, Tex.

Broom Machinery.—Wm. Shakel, 300 Henry St., S. W., Roanoke, Va.—Mchy. for mfre, of brooms from broom corn; currespond with mfrs.

Belting.—Elkin Veneer & Mfg. Co., Elkin, N. C.—Belting.

Cars (Tank).—Pennsylvania Equipment Co. Norwood, Pa.—Two second-hand, 2 or 3 compartment, steel under-frame tank cars.

Coal.—City of Asheville, N. C., J. H. Schoepf, Purchasing Agt.—Invite bids for its coal supply, about one-third lump and two-thirds run of mine; for one year from Sept. 1, 1922.

Crane (Electric).—Thomas Grate Bar Co., Co., Birmingham, Ala.—10 ton capacity overhead electric traveling crane, 3 phase, 60 cycle, 440 volts A. C., span 29 ft. to center or rail, lift 20 ft., overhead clearance 56-in.

Drainage.—Potacocowa Creek Drainage Dist., Carrollton, Miss.—Bids until Aug. 31 to construct 2.21 ml. ditch and 3.2 ml. levee in Carroll and Grenada Counties; 391,500 cu. yds. earth excavation and embankment; Morgan Engineering Co., Engr., 634 Goodwin Institute Bidg., Memphis, Tenn.

Drainage.—Iberia & St. Mary Drainage Dist., L. Moresi, Secy., Jeanerette, La.—Bids until Sept. 4 to dredge Iberia and St. Mary canals, also old Delahoussaye canal either by yd. or ml.; also suitable dredge boat for their work.

Dredging.—United States Engineer's Office, Norfolk, Va.—Bids opened Sept. 14 for dredging in Pagan River; information on application.

Engine.—Alton Lumber Co., Buchannon, W. Va.—6 to 8 H. P., Thermoil or gasoline engine.

Engine.—Elkin Veneer & Mfg. Co., Elkin, N. C.— Corliss engine of about 75 H. P.

Excavation (Trench).—Board of Awards, Richard Gwinn, City Register, Baltimore, Md.—Bids until Aug. 30 for trench excavation, water dept.; Wm. A. Megraw, Water Engr.

Fan (Mine).—Alton Lumber Co., Buchannon, W. Va.—5 ft. mine fan.

Fire Hydrants.—Board of Awards, Richard Gwinn, City Register, Baltimore, Md.—Bids until Aug. 30 to furnish and deliver fire hydrants to water dept.; Wm. A. Megraw, Water Engr.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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Flavoring Extracts.—Warren O. Coole, Newburg, W. Va.—To correspond with mfrs. of flavoring extracts, made without alcohol

Furnaces (Crude and Fuel OÚ).—Cumberland Iron Works, Inc., Huntington, W. Va.—To correspond with mfrs. of heating furnaces burning crude and fuel oil.

Furniture.—Robt. H. Keene, Golden Hill, Md.—Tables and chairs for ice cream parlor; also store fixtures in general.

Gasoline.—Panama Canal, A. L. Flint General Purchasing Officer, Washington, D. C.—Bids until Sept. 2 to furnish gasoline in bulk. Blank forms and information (Circular 1492) on application to offices of Panama Canal; Asst. Purchasing Agts. at 24 State St., New York, 611 Bravier St., New Orleans, La., Fort Mason, San Francisco, Cal.; U. S. Engr. offices throughout the country.

Generator Sets (Electric).—Parry-Mann Ecctric Co., W. M. Perry, Prest., Columbia, S. C.—New or second-hand 300 H. P. steam engine to be used for belting to 225 K. W., 240 volt, 3 phase 60 cycle generator; also prices on 225 K. W., 3 phase, 60 cycle, 240 volt generator complete with exciter and switchboard.

Handkerchief Materials.—Måltex Mfg. Co., 1010 Elm St., Dallas, Tex.—To purchase all kinds of material for mfre. of handkerchiefs, especially bordered.

Handles (Wire).—Fidelity Can Co., 610 S. Caroline St., Baltimore, Md.—To correspond with mfrs. of handles for water pails; wire bail with wooden roller in center.

Heating Plant.—State Board of Control, J. P. Greenwood Conslt. Engr., Austin, Tex.—Bids opened Sept. 2 for heating plant for Southwestern Insane Asylum at San Antonio, Tex.; plans, etc. at office of Conslt. Engrs.

Incinerator.—City of Knoxville, Tenn., John L. Greer, Recorder.—Bids until Sept. 12 for construction of 1 unit incinerator; cost not to exceed \$70,000; contour map on file at office of Engineer.

Jetty Repairs.—U. S. Engr. Office, Jacksonville, Fla.—Bids until Sept. 21 for jetty repairs at entrance to St. Johns river; further information on application.

Lathe.—K. E. Stahl, Mgr., Stahl Toy & Novelty Co., New Berne, N. C.—Automatic lathe for wood turning.

Lathe, Etc.—G. B. Wilson, 1212 Arlon Ave., Wichita, Kan.—Lathe, drill press and emery wheel.

Lawn Mower (Electric Driven).—A. E. Dickson, Orlando, Fla.—To correspond with mfrs. of electric driven lawn mower; can be drawn with hand, motor to drive blades.

Light Plant.—Gulf State Land and Lumber Co., J. A. Leindecker, Coushatta, La.—One 50 K. W. light plant complete.

Pig Lead.—Board of Awards, Richard Gwinn, City Register, Baltimore, Md.—Bids until Aug. 30 to furnish and deliver pig lead to water dept.: Wm. A. Megraw, Water Engr.

Light and Power Plant.—City of Apalachicola, Fla., F. B. Wakefield, Clk.—Bids until Sept. 12 to install 2 unit, 200 K. W. electric light and power plant.

Locomotive.—M. B Parker, Chattanoga, Tenn.—Second-hand 36-in. gauge Brookfield Ford mine locomotive.

Miscellaneous Supplies.—Robertson Co., Box S91, Richmond, Va.—To purchase the following: Mens garters, handkerchiefs, socks and collar buttons; assorted shoe laces; bow and four in hand neckties; powder puffs; single and double hair nets; visible and invisible hair pins, etc.

Moulds (Reinforced Concrete Pipe)—Quigley Broom Co., Starke, Fla.—Correspondence with mfrs, of reinforced concrete pipe moulds.

Oil Heaters.—E. E. Overholt, 922 M. St., N. W., Washington, D. C.—Names and addresses of mfrs. of oil heaters for 12 room dwelling.

Paint Room Equipment.—K. E. Stahl, Mgr., Stahl Toy & Novelty Co., New Berne, N. C.—Prices on paint room equipment.

Paving.— City of Kirksville, Mo.—Bids opened Aug. 24 to pave Main St.

Paving Brick.—C. W. Perkins, 1103½ Grand Central Ave., Tampa, Fla.—To correspond with Eastern mfrs. of paving brick, to ship materials by water.

Paving.—Richard R. Nacy, City Clk., Jefferson City, Mo.—Bids until Aug. 25, to pave Bolivar and McCarty Sts. and improve Chestnut St.; bituminous macadam, plans etc. on file.

Paving, etc.—Commrs. of Paving Dist. No. 60, Pine Bluff, Ark.—Bids until Sept. 4 to construct paving, curb and gutter as follows: 12,380 cu. yds. earth excavation; 37,308 sq. yds. reinforced concrete pavement; 28,482 lin. ft. of 12 to 24-in. storm sewer pipe; 40 cu. yds. Class A concrete; 33 inlets; 2 manholes; plans with Fred Bennett, Dist. Engr.

Paving and Sewer Construction.—City of Mobile, Ala., R. V. Taylor, Street Commr.—Bids until Sept. 14 for following: 29,756 sq. yds. one course concrete paving; 14,512 lin. ft. concrete curbing, 1334 ft. of 12-in., 2405 ft. of 18-in., 522 ft of 21-in., and 1160 ft. of 15-in. double strength storm sewers; 3036 ft. of 6-in., 1872 ft. of 10-in., 1340 ft. of 12-in., 315 ft of 15-in. standard storm sewers; 24 standard manholes; 83 standard inlets and 19 standard special basins; plans on file with Wright Smith, City Engr.

Perfumes, Etc.—W. C. Mitchell, College Station, Tex.—To correspond with mfrs. of perfumes and essential oils.

Pipe.—Elkin Veneer & Mfg. Co., Elkin, N. C.—Pipe.

Printing Press.—J. A. Masters, 1352 S. Water St., Wichita, Kan.—Power printing press.

Pumping Equipment.—Marine Corps, Quartermasters Dept., Washington, D. C.—Bids until Aug. 28 for furnishing the following: One pump, plunger type, complete with electric motor, equipped for salt water; 2 hydrants, fire standard, 200 ft. glavanized iron pipe, 1 ell, 1 tee, 300 ft. fire hose, one hose cart, 2 nozzles, 20 ft. hose, suction and 1 ft. valve and strainer for Depot Quartermaster, U. S. Marine Corps, Port au Prince Haiti; delivery to be made to Naval Operating Base, Hampton Roads, Va.; information on application. (Schedule No. 67.)

Road Construction.—City, Paving Dist. No. 16, Fort Smith, Ark.—Bids until Oct. 15 to pave 60,500 sq. yds., with 28,000 sq. yds. new concrete base; asphaltic or vitrified brick pavement; \$130,000; W. L. Winters, Engr.

Road Construction.—Sumter County Permanent Road Comsn., Sumter, S. C.—Bids until Sept. 7 for hard surface pavement, grading and constructing drainage structures on following:

Sumter-Manning road, 6.1 mi.

Camden road, Sec. C, 4.2 mi.; Lee, Pennell & Murray, Engrs., Sumter. (Lately noted bids until Aug. 10.

Road Construction.—State Highway Comsn., Raleigh, N. C.—Bids until Aug. 30 to build hard surfaced road from Kings Mountain to Shelby.

Road Construction.—State Road Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Aug. 29 for following roads: Alleghany County, 3 ml. concrete State Highway from Cumberland toward Old Town, Cont. A-21.

Frederick County, 4 ml. concrete State Highway from Middletown toward Burkittaville,, Contr. F-57.

Howard County, 2 mi. gravel, State Highway from Laurel toward Scaggsville, Contr. HO-27.

Howard County, 2 ml. gravel, State Highway from Washington Blvd. near Savage, toward Simpsonville, Contr. HO-30.

Anne Arundel County, 1 ml. concrete, State Highway from Eastport toward Bay Ridge, Contr. AA-25.

Calvert County, 2.6 mi. gravel, State Highway from Yoes Corner toward Brooms Island, Cont. C-13.

Charles County, 3.9 mi. gravel, State Highway from Nanjemoy to Riverside, Cont. CH-21.

St. Mary's County, 4 mi. gravel, State Highway from Chingville to Valley Lee, Cont. SM-20.

Road Construction.—Palm Beach County Commrs., Hector Harris, Chrmn. West Palm Beach, Fla.—Bids until Aug. 26 to build 10 ft. shell Ocean Blvd. on Jupiter Island, through Bon Air Beach; plans with R. F. Goodman, County Engr.

Road Construction.—State Highway Coman. Raleigh, N. C.—Bids until Aug. 29 to build 10.24 ml. hard surfaced road between Lexington and Thomasville in Davidson County also free bridge, steel and concrete construction, over Yadkin river.

Road Construction.—Dorchester County Highway Comsn., St. George, S. C.—Bids until Sept. 1 to construct 4.642 mi. of Orangeburg-Charleston road, between city limits of Rosinville and Orangeburg county line; work incides 32,884 cu. yds. excavation, 11,424 cu. yds. sand clay surfacing, 24.51 lin. ft. mixing and shaping, 735.5 lin. ft. reinforced concrete pipe, 78.02 cu. yds. class B. concrete headwalls; 78 cu. yds. concrete, and 6250 lbs. steel reinforcement for culvert work; Federal Aid Project No. 160; plans with State Highway Engr., Columbia, S. C.

Road Construction.—State Highway Dept., Raleigh, N. C.—Bids until Aug. 30 for following:

Anson County, 7.88 ml. State Highway between Wadesboro and Polkton on Route No. 20; State Project No. 608.

Davidson-Rowan Counties, 0.59 mi. between Lexington and Spencer on Route No. 10; State Project No. 673.

Pitt County, 7.14 mi. Columbus County, 7.03 mi. Durham County, 8.80 mi. Orange County, 9.87 mi.

Rockingham County, two projects, totaling 11.91 mi.

Surry County, two projects for 5.62 ml. Wilkes County, 2.52 mi.

Cleveland County, two projects of 12.05 ml. Rutherford County, 4.83 ml.

Buncombe County, 7.57 mi.; plans on file or with Dist. Engr., Charlotte, N. C.

Road Construction.—Coleman County Commissioners, J. G. Matthews, Judge, Coleman, Tex.—Bids opened Aug. 24 to improve 10.85 ml. State Highway No. 7-A, Federal Aid Pro. 303; plans with W. E. Dickerson, County Engr.

Road Construction.—Joe A. Johnson, Henderson County Judge, Athens, Tex.—Bids until Aug. 28 to grade and hard surface 2½ ml. road in Dist. No. 8, local gravel.

Road Construction.—State Highway Dept., Jefferson City Mo.—Bids opened Aug. 23 for following:

Clark County, 8.506 mi. State road from Alexandria westwardly, gravel, culverts, and bridges, etc., State Ald Project No. 171;

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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Road Construction.—State Highway Dept., Jefferson City, Mo.—Bids opened Aug. 21 for following:

Maries County, 3.144 mi. State road from Vienna northward; gravel; State Aid Project No. 2098 B.

Maries County, 3.523 mi. State road from Hawkin's Store southward; gravel; State Aid Project No. 20.99 B.; R. W. Hodson, Div. Engr., Jefferson City.

Putman County, 2.806 mi. road from Unionville northward; grading with culverts and wooden guard rail, etc., State Aid Project No. 20.198; C. P. Owens, Div. Engr., Howe Bldg., Macon, Ga.; B. H. Piepmier, Chief-Engr.

Read Construction.—State Highway Dept., Jefferson City, Mo.—Bids opened Aug. 25; St. Clair County, 3.244 mi. State road from Osecola north and southwest; grading, culverts, etc.; State Ald Project No. 20.176; Ray Dunlap, Div. Engr., Frisco Bidg., Joplin, Mo.

Road Construction.—State Highway Dept., Jefferson City, Mo.—Bid opened Aug. 22 for following:

Dent County, 2.824 mi. State road from Salem southwestwardly, gravel with any incidental work, State Aid Project No. 20.205; J. H. Long, Div. Engr., Willow Springs, Mo. Benton County, 2.386 mi. State road from Dell southwestwardly, grading, construct culverts, bridge and wooden guard rail, etc.; State Aid Project No. 20.90; A. C. Lingley, Div. Engr., Reliance Bidg., Kansas City, Mo. Franklin, County, 1478 mi. State road from

Franklin County, 1.476 mi. State road from 8t. Clair southwestwardly, grading, etc., State Aid Project No. 20.204; S. M. Rudder, Div. Engr., Bristol Bidg., Webster Grove.

Boad and Street Construction.—City of Graham, Va. and Tazewell County Commrs., invite bids on grading and draining 4400 ft. road and street; \$10,000 to \$12,000; Geo. A. Martin, Engr., Tazewell, Va.

Boad Oil.—Board of Commrs., John L. Greer, Recorder, Knoxville, Tenn.—Bids until Sept. 5 for 4 to 6 cars of road oil; plans with City Engr.

Bock, etc.—Brevard County Commrs., N. T. Froscher, Clk., Titusville, Fla.—Bids until Sept. 5 to furnish and place 2000 cu. yds. broken stone or Coquina rock upon 6258 lin. ft. Courtenay road; 1700 cu. yds. stone upon Barlow road; 1200 broken stone on Georgiana road; 4800 cu. yds. stone on road north of Banana river bridge; etc.

Sewer Construction.—City of Portsmouth, Va.—Bids opened Aug. 28 at office of City Mgr. for construction of approx. 10,218 lin. ft. of s.in. T. C. sewer; 1228 lin. ft. of 10-in. T. C. sewer; 447 lin. ft. of 10-in. Class B cast iron pipe; 34 manholes; 5 drop manholes;; 15 flush boxes; 12,150 lin ft. of 4-in. T. C. (house connections, 3000 ft. B. M. creosoted short leaf Y. P. lumber) together with appurtent structures in streets and alleys of West Park View and Park View; plans etc. on file at office of Jos. F. Weaver, Jr., City Engr.

Sewer Construction.—City Manager, Portsmouth, Va.—Bids opened August 21 for relaying approx. 215 lin. ft. of 8-in terra cotta pipe sewer; constructing 170 lin. ft. of 4-in T. C. pipe (house connection) together with all appurtenant structures in Effingham St. between Stonewall and Emmett Sts.; also relaying approx. 389 lin. ft. of 8-in. T. C. pipe sewers, without Y's and laterals; also approx. 286 lin. ft. of 8-in. T. C. pipe sewer, 240 lin. ft. of 4-in. T. C pipe house connections; plans, etc with Jos. F. Weaver, Jr., City Engr.

Sewer Construction.-City of Paintsville,

Ky., R. C. Thomas, Mayor—Bids until Sept. 7 for construction of 2 systems of sewers and appurtenances to be built of vitrified tile or concrete pipe; approx. quantities as follows: First or Margaret Heights system, 4356 ft. of from 24-in. to 6-in. in diam. average depth 5.5 to 11.5 ft., 9 manholes, 4 lampholes; Frank & Prest on Sts. system; 2306 ft. of from 6 to 15-in. in diam., average depth from 7.5 to 8 ft., 4 manholes, 2 lampholes; bidders must submit bids for both systems separately; plans and specifications on file at office of City Clerk.

Sewer Construction.—City of Portsmouth, Va., Jos. F. Weaver, City Engr.—Bids opened Aug. 28 for construction of the following: approx. 771 lin. ft. 12-in., 365 lin. ft. of 15-in., 290 lin. ft. of 18-in., 240 lin. ft. of 21-in., 170 lin. ft. of 24-in., 260 lin. ft. of 27-in., 809 lin. ft. of 36-in. T. C. sewer; 1065 lin. ft. of 42-in. sewer; 555 lin. ft. of 48-in. sewer; 13 manholes; 11 inlet catch basins; 15 inlet boxes; together with all appurtenant structures in West High St.; plans, etc. on file at office of City Engr.

Sewerage Pumping Equipment.—City, A. G. Mundinger, Engr., Baton Rouge, La.—Bids opened August 31 for sewerage pumping equipment; plans and specifications on file at office of A. B. Wood, Consit. Engr., care Sewerage and Water Board. New Orleans, La.

Shafting.—Elkin Veneer & Mfg. Co., Elkin, N. C.—Shafting.

Steam Turbine.—Sewerage and Water Bld., A. G. Moffat, Secy., New Orleans, La.—Bids until October 10 for furnishing 6000 K. ws. steam turbine and accessories; specification on file at Room 303, No. 326 Carondelt St.

Store Fixtures .- See Furniture.

Steel Oil Barge.—U. S. Engr. Office, 329 Customhouse, New Orleans, La.—Bids until Sept. 15 to construct and deliver two 4000 bbl. steel oil barges in Mississippi river at New Orleans; further information on application.

Street Lamp Fixtures, etc.—Board of Awards, Richard Gwinn, City Register Baltimore, Md.—Bids until Sept. 6 for gas street lamp fixtures and maintenance; John A. Hanson, Supt. of Lamps and Lighting.

Taping Machine.—High Point Machine Works, (Mchy. Dealers) High Point, N. C.— Dealers prices on used taping machine for veneers.

Threading Machines (Pipe and Nipple).— W. M. Painter, 124 Wilkens St., Baltimore, Md.—One 1¼ and one 2-in. double spindle pipe and nipple threading machines; second-hand; prefer Landis but will consider Acme or National.

Tractor.—Navarro County Commrs. Precinct No. 3, Corsicana, Tex.—Bids opened Aug. 19 for caterpillar tractor for road work.

Transmission Line, etc.—Commrs. of Public Works, P. M. Tiller, Chrmn., Maysville, S. C.—Bids until Aug. 31 to erect 13,200 volt, or 6600 volt transmission line, 2300 volt distribution system and 2 substations; specifications on file or with Ryan Engineering Co., Engr., Columbia, S. C.

Turbe-Generators.—M. H. Crump, Box 565, Bowling Green, Ky.—Prices on turbines with electrical attachment.

Water Works.—City of Baton Rouge, La., A. G. Mundinger, Engr.—City opens blds Aug. 31 for enlarging University Dyke and constructing spillway and gates; approx. 40,000 cu. yds. earth enlargment; 3300 cu. yds. excavation and refilling for culvert; 300 cu. yds. concrete in culvert; plans, etc. on file at office of City Engr.

Woodworking Equipment.—White Trunk Co., 217 W. Lewis St., J. F. Kemel, Mgr., Wichita, Kansas.—In the market for woodworking equipment, including power drill press, lathe, emery stand, belting, shafting, hangars.

Woodworking Machinery.—Fibre Mfg. Corp., 612 New Arpheum Bldg., Wichita, Kan.—Woodworking mehy. including cut off saw, shafting, pulleys, belting, wood lathe and bearings.

. Woodworking Machinery. — White Oak Corp., Box 1004, Knoxville, Tenn.—Light type, 12-in. hand jointer with slotted head and light moulder or sticker, 4 to 6-in., 3 or 4 side.

Financial News

New Financial Corporations.

Ala., Montgomery—First Finance Corporation, capital, \$250,000 incptd. by A. M. Baldwin, W. A. Bellingrath, R. F. Ligon, all of Montgomery.

Fla., Little River—Bank of Little River, capital \$15,000, incptd. with J. W. Spivey, Prest., M. P. Harvey, Vice-Prest., and John L. Grice, Cashier, Buena Vista.

Ky., Ekron—Meade County—The Meade Contral Bank of Elkron, capital \$15,000; incptd. by J. M. Jones, B. W. Walker, J. S. Dowell, and Park Wright.

Ky., Harlan—The Citizens National Bank of Harlan, capital \$100,000, incptd. with C. E. Ball, Prest., and G. G. Whitcomb, Cashier.

Ky., Hesler—P. O. Owentown—The Hesler Deposit Bank. capital \$15,000 surplus \$15,000, incptd. by J. M. Starness, Perry C. Jones, Kelly Cobb, J. Cooper Johnson, and Wm. L. Cammack.

N. C., Fairmont—The Merchants and Farmers Bank of Fairmont will open for business; incptd. with Geo. H. Cole, Prest., Dr. L. H. Price, Vice-Prest., and R. H. Cuddington, Cashier.

Tenn., Chattanooga — The Fidelity Trust Company, capital \$50,000; incptd. by R. W. Olmstead, J. F. Crabtree, J. R. Hedges, and others.

Va., Radford—The Peoples Bank of Radford, capital \$25,000; surplus \$50,000; incptd. with Lewis Ingles, Prest., II. C. Taylor, R. L. Gardner and W. R. Jordan, as Vice-Prests., and F. P. McConnell, as Cashier.

Va., Richmond—Grace Street Bank & Trust Company, 215 Grace St., capital, \$200,000, surplus, \$20,000, incptd. with Philip E. W. Goodwin, Prest., T. Elwood Tragle, Vice-Prest., R. C. Eaton, Secy-Treas.

Va., Rocky Mount—Franklin Finance Company, Inc., maximum \$25,000, minimum \$15,500; incptd. with R. L. McNeil, Prest., W. C. Menefee, Secy., and W. R. Davis, all of Rocky Mount.

New Securities.

Ala., Gadsden—Railroad—The Tennessee, Alabama & Georgia Railroad applied to interstate commerce commission for authority to issue \$2,500,000 bonds.

Ark., Little Rock—Road—E. O. Bagley, Sec. sold \$400,000 20-yr. Little Rock-Hot Springs Highway Dist. bonds, to the Citizens

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned

ioned.

National Bank, for 100.105. (Lately noted.)

Ark., Little Rock—Street Improvement
—Street Improvement District No. 302 and
Curb and Gutter Improvement District No.
301, sold \$39,500 6 per cent bonds to M.
W. Elkins & Co., Little Rock, a a premium
of \$359.45.

Ark., Pine Bluff—Sewer—City sold \$10,000 bonds for Sewer Dist. No. 20, to the National Bank of Arkansas.

Ark., Waldo—School—School District has sold \$50,000 6% bonds to M. W. Elkins & Company. Address V. M. Hardin, Supt. of Schools.

Fla., Sebastian—Inlet—M. M. Miller, Secy. Board of Commrs. Sebastian Inlet Dist. receives bids until Sept. 18, for \$100,000 6 per cent bonds; \$1000 denomination, dated July 1, 1921.

Fla., St. Petersburg—School—Pinellas Board of Education sold \$18,000 bonds to Hanchett Bond Company of Chicago, for above par.

Fla., Tavares—Road and Bridge—The Board of County Commrs. of Lake County, T. C. Smith, Clk., receives bids until Sept. 2, for \$250,000 6% bonds.

Ga., Omega—School—The Omega Consolidated School District sold \$15,000 bonds at a fraction above par and accrued interest.

Ky., Ashland—School—City sold \$250,000 bonds to brokerage firm, at par and accrued interest of 4%%.

La., Amite—Street Improvement—The Town Council will receive bids until Aug. 22, for \$16,000 6 per cent bonds.

La., DeQuincy—Municipal Light and Water Plant—City will hold election Sept. 1 for voting on \$120,000 bond issue. Address The Mayor,

La., Franklin—Improvement—C. Aucoin, Town Clk., of Saint Mary Parish, receives bids until Sept. 5, for \$75,000 5% bonds, dated Sept. 15.

La., Lake Charles—School—Calcasieu Parish School Dist No. 18, F. K. White, Secy., Board of Education, receives bids until Sept. 5, for \$70,000 6% bonds.

La., Rayville—Levee—Tensas Basin Levee Dist. J. W. Summerlin, Prest., Board of Commrs., receives bids until Aug. 30, for \$120,000 5 per cent bonds. (Lately noted)

La., Winnsboro—Water and Sewer—Town, A. W. Brown, receives bids until Sept. 7, for \$80,000 bonds; \$35,000 sewer, and \$45,000 water, 5%, \$500 denomination. Lately noted.

Md., Chestertown—Road—Kent County Commrs., sold \$21,000 5% bonds to Nelson, Cook & Co., of Baltimore.

Md., La Plata—Refunding—Charles County Commrs. sold \$17,000 5% bonds of \$1000 denomination, to Stein Bros & Boyce and the Mercantile Trust & Deposit Co., at 102.44. (Lately noted.)

Miss., Collins—School, Electric and water— The Mayor and Board of Aldermen contemplate issuing \$25,000 school and \$40,000 electric and water bonds.

Miss., Fayette-Road-City voted \$40,000 bond issue. Address The Mayor.

Miss., Jackson—Attorney Gen. Robinson, sold \$1,500,000 of short time notes at a premium of \$800, and 4%% interest

Miss., Jackson—Armory—Hinds County Board of Supvrs. authorized an election for Sept. 2, for the voting of \$660,000 bond issue.

Miss., Marks—Drainage—Commrs. of Lost Lake Drainage Dist. of Quitman County sold \$50,000 bonds of \$1000 denomination, to Bank of Commerce and Trust Co. Memphis, Tenn., for 101 and accrued interest. (Lately noted.)

Mo., Caruthersville—Water—City will hold election to vote on \$25,000 bond issue. Address The Mayor.

Mo., Columbia—Gas—City Council has called election for Sept. 7, for voting on \$100,000 gas bonds.

Mo., Jefferson City—Road—The State Fund Commsn., receives bids until Sept. 1 for \$5,000,000 4½% bonds; \$1000 denomination. L. D. Thompson, State Treas.

Mo., Jefferson City—Highway—The State Board of Fund Commissioners will issue \$5,000,000 bonds.

Mo., Rich Hill— Water and Electric— City will hold election Sept. 1, for voting on \$20,000 bond issue. Address The Mayor.

Mo., St. Charles—School—School Trustees sold \$224,000 bonds to Lafayette South Side Bank and Styx & Co., of St. Louis, and the Union Trust Co., of East St. Louis, at a premium of \$3920. (Lately noted.)

Mo., St. Joseph—Sewer—City Controller, W. S. Willard receives bids until Sept. 1, for \$795,000 5% bonds.

Mo., Washington—City Hall—City voted on \$35,000 bond issue, for erection of City Hall. Address The Mayor.

N. C., Cherryville—Water and Light—J. M. Crocker, Town Clk., receives bids until Aug. 21, for \$50,000 6% bonds; \$1000 denomination.

N. C., Concord—School—Geo. H. Richmond, City Treas., sold \$225,000 5% bonds to Caldwell and Company of Nashville, Tenn., at par. (Lately noted.)

N. C., Durham—School—Y. E. Smith, Secy. of School Committee receives bids until Aug. 25. for \$40,000 school bonds.

N. C., Ellerbe—School—J. H. McRae, Secy., Board of Trustees, Ellerbe High School Dist. receives bids until Aug. 29, for \$15,000 6% school bonds.

N. C., Gibsonville—Water and Sewer— Board of Aldermen, and W. J. Jennings, Town Clk., receives bids until Aug 28, for \$50,000 waterworks and \$30,000 Sewerage bonds 6 per cent bonds.

N. C., Hamlet-Street-Town, E. H. Mahone, Clk., receives bids until Aug. 29, for \$200,000 6% bonds.

N. C. Lumberton—Road—City will hold election to vote on \$20,000 bond issue soon. Address The Mayor.

N. C., Morehead City—Funding—City, T. C. Wade, Mayor, receives bids until Aug. 28, for \$40,000 6% bonds; \$100 denomination.

N. C. Raleigh—Road—Plans for issuing additional bonds from \$10,000,000 to \$25,000,000 are being discussed in North Carolina.

N. C., Tabor—Funding—Town, W. H. Shelly, Clk., receives bids until Aug. 22, for \$10,000 6% bonds; \$500 denomination.

Okla., Barnsdall—waterworks—City will vote on Bond issue on Aug. 30. Address The Mayor.

Okla., Grove—School—Citizens of Grove voted \$32,000 bonds. Address The Mayor.

Okla., Norman—Road and Bridge—Cleveland County Commrs., called election Sept. 19, for voting on \$500,000 road and \$100,000 bridge bonds. (Lately noted.)

Okla., Sand Springs—Sewer—City, Cloe Tingley, Engr., voted \$90,000 bonds for sanitary sewers.

Okla., Vinita-Water-City voted \$297,000 bond issue. Address The Mayor.

S. C., Bamberg-School-City voted on \$35,000 bond issue for erection of school. Address School Trustees.

S. C., Lancaster—School—Lancaster School Dist., sold \$85,000 and \$75,000 bonds to the Hanchett Bond Co., of Chicago at a premium of \$3005.50 equal to 101.87. (Lately noted.)

S. C., Winnsboro—Paving—Town voted \$50,000 bonds. Address The Mayor.

Tenn., Manchester—Road—Coffee County, John P. Buchanan, Chairman, sold \$300,-000 5 per cent bonds to The American National Securities Company of Nashville, for par, accrued interest and a premium of \$8,550. (Lately noted.)

Tex., Angleton—Road—Brazoria County contemplates voting on \$75,000 bonds. Address C. D. Jessup, County Judge, Angleton.

Tex., Athens—Road—Road Dist. No. 5, Herderson County, Joe A. Johnson, County Judge, receives bids until Aug. 28. for \$18.000 5½% bonds.

Tex., Bellevue—Water—City votes Aug. 22, on \$5000 water bond issue. Address The Mayor.

Tex., Clarksville—Street and Water—City sold \$20,000 street and \$22,000 water extension bonds to The Hanchett Bond Co., Chicago for \$181.65 premium. (Lately noted.)

Tex., Cameron—Road—Milam County voted \$35,000 bonds; W. C. Gillis, County Judge; A. F. Mitchell, County Mgr.

Tex., Cooper—Levee—Delta County levee improvement Dist. No. 8, Joel H. Berry, Judge, sold \$77,500 bonds to W. R. Compton & Co., St. Louis, for twenty conts on the dollar.

Tex., Dallas—School, Improvement and Sewer—M. G. James City Secy., sold \$560, 000 school, \$140,000 improvement, and \$100, 000 sewer bonds of 5% to Geo. L. Simpson & Co., of Dallas, and Eldredge & Co., New York, at \$105.57. (ately noted.)

Tex., Floydada-Waterworks-City sold \$12,500 bonds to Brown Crummer Company of Wichita, Kan.

Tex., Houston-Road-Harris County will issue \$6,000,000 bonds. Address The Mayor.

Tex., Houston—Municipal—City, Mayor Holcombe, receives bids until Aug. 29, for \$1,300,000 5 per cent bonds. (Lately noted.)

Tex., Houston—Sewer, Bridge and Building—W. A. Moore, City Secy., receives bids until Aug. 29, for \$250,000 drainage, \$250,000 sanitary sewers, \$250,000 bridge, and \$200,000 library bonds; 5% and \$1000 denomination

Tex., Kerens—School—Kerens Independand Hall of Temple, at a premium of \$500, ent School Dist. sold \$35,000 bonds to Hall equal to 101.42. (Lately noted.)

Tex., Lancaster—School—City voted \$50,000 bond issue. Address The Mayor.

Tex., Memphis—Road—Hall County Road District No. 5, W. A. McIntosh, Judge, votes Aug. 26 on \$10,000 514% bonds.

Tex., Muleshoe—Road—Bailey County Road Dist. No. 1, Commrs. sold \$30,000 5% bonds to John N. James, a local investor.

Va., Galax—Paving, Water Works—City sold \$75,000 paving and \$25,000 water works bonds. (Lately noted.)

W. Va., Fairview—City, voted \$13,000 bond issue, validated by E. T. England, Atty.-Gen'l. Address The Mayor,

W. Va., Logan—Street Improvement—J. A. Hogg, Mayor, receives bids until Aug. 31, for \$30,000 6% bonds; \$100 denomination or multiples thereof.

W. Va., Welch—Road—McDowell County, W. W. Whyte, Clk., sold \$150,000 5½% bonds to J. A. Huddleston, at par, plus a premium of \$1500. (Lately noted.)

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Financial Notes.

Ala., Alabama City-A new bank will soon be opened in this city, with \$25,000 capital. Dr. C. B. Forman, of Attalla, will be manager.

Ga., Milltown-The Merchants and Farmers Rank of Milltown has increased its capital stock \$10,000. Its resources are \$280,000.

Ky., Louisville-The Commonwealth Life Insurance Company has increased its capital stock from \$500,000 to \$1,000,000.

Ky., Louisville - The Greater Louisville Savings & Building Assn., has increased its capital from \$3,000,000 to \$3,500,000.

Miss., Natchez-The Natchez Farm Loan Assn., capital \$100,000; received its charter of incorporation from Atty. Gerard Brandon.

S. C., Greenville-The Industrial Loan & Investment Corporation of Greenville, contemplates increasing capital stock from \$40,-000 to \$50,000.

Tenn., Nashville—The Cumberland Building Loan & Saving Assn., increased its capital stock from \$300,000 to \$1,000,000.

Va., Onancock—The First National Bank of Onancock has increased its capital to \$100,000.

Va., Phoebus-The First National Bank of Phoebus, made application to Treasury Department for organization, W. J. H. Tennis, Correspondent.

Va., Richmond—George C. Gregory is planning to organize the Guaranty Trust Company of Richmond, with a capital \$300,-

W. Va., Wheeling-The Wheeling Bank W. Va., Wheeling—The Wheeling bank and Trust Company and the National Ex-change Bank, are planning consolidation, under the name of the latter; capital \$1,000,-000, surplus \$1,000,000, undivided profits of \$20,000 and resources \$13,000,000.

Trade Literature.

A Story Told Mainly by Pictures.

In their pamphlet descriptive of the Schoop metal coating process the Metals Coating Company of America, 495-497 North Third St., Philadelphia, Pa., have endeavored to show its adaptability to commercial requirements and in a form which would interest industrial users. The subject is presented pictorially rather than by the use of lengthy text. The illustrations are numerous but the reading matter is comparatively brief.

Specifications for Architects and Engineers.

The Truscon Laboratories, Detroit, Mich., ave issued an "Architects' Specification Handbook" containing 52 sheets of specifications of waterproofings, dampproofings, floor hardeners, mill white paints, white enamels, steel paints, and varnishes. Altogether there are 108 pages, each 8½ by 11 inches in size, and in the preparation of the book emphasis was placed upon its arrangement so that it would be of the greatest convenience and utility to architects and engineers in preparing specifications. So far as possible each specification is confined to one page and no descriptions are interpolated, but whatever descriptive matter is necessary is to be found on the back of the specification sheet. The book is in loose leaf form so that anyone can separate the specifications and file them as they may desire, should they prefer to do so rather than keep it as it is for refer-

Leather Belting Specifications.

"Specifications for Leather Belting" is a booklet issued by the Leather Belting Ex-change, Philadelphia, Pa., Louis W. Arny, Secretary. These specifications were prepared by collaboration of the Bureau of Standards, S. W. Stratton, Director, Depart-ment of Commerce, Washington, D. C., and the Leather Belting Exchange. They are dated 1922. Everyone interested in leather belting and its manufacture will welcome this publication for its valuable information.

Special Sheet Metal Work.

The Canton Art Metal Co., Canton, Ohio, have issued a booklet entitled "Special Sheet Metal Work," which they manufacture. It illustrates some of the several types so as to give the reader an idea of the range of construction covered. It includes tote boxes, stacking trays, mill pans, chip pans, waste cans, shop barrels, tool cabinets, tool stands, factory stools and chairs, gear guards, dry ing ovens, tanks, hoods, storage tanks, dust collectors, storage bins, shelving, stock room cabinets, radiator shields, marquises, me-chanics tool boxes, etc., besides ventilators and skylights.

Important to Lumbermen and Others.

A new and revised edition of their bulletin, "Cutting the Cost of Lumber Production," has been issued by the Pawling & Harnischfeger Co., Milwaukee, Wis., manufacturers of lumber handling machinery and inventors of the pack-system of lumber handling. The book consists of 36 pages and 52 illustrations and contains complete operating data about the various kinds of handling machinery which is widely used. Its last section describes the application of the gas shovel in logging work, and there are also the monorail handling system in the South and elsewhere. Clearance diagrams of monorail hoists, transfer cars, typical A-frame supports, and portal jib cranes are given. The publication will be a valuable reference work for mill engineers, architects and lumbermen.

Interesting Shovel Folder.

"Marions Go Anywhere," says the title on a folder issued by the Marion Steam Shovel Co., Marion, Ohio. Inside is a picture showing two Marion shovels mounted on crawler trucks and crossing the hard frozen surface of the Mississippi River at Grand Rapids, Minn., under their own power. There are also many other illustrations showing these shovels engaged on different kinds of jobs.

Roof Leaders and Vent Connections.

A new Holt roof leader and vent connections booklet, which products are manufactured and sold by the Barrett-Company of New York, and other cities, explains exactly what these roof connections are and that they are designed to be used with either kind of flat roof or saw tooth construction and for any place where vent pipes, leader lines, steam stacks, flag poles or any other fixtures pass through a roof and require flashings. The eight types of these roof connections are minutely described with half-tone illustrations, besides cross section views of each type. Full particulars with tabular data are also given.

Copying by Photography Simplified.

"The Book of Cameragraph," published by
the Cameragraph Company, 411 East 8th St.,
Kansas City, Mo., gives full particulars
with illustrations concerning the Cameragraph, a photographic machine for copying all kinds of documents, maps, blue prints, letters, etc., directly upon sensitized paper. The picture is developed and fixed automatically inside of the machine and, it is further stated, skill in photography to oper-ate it is unnecessary. Thus photography is simplified for business purposes. The new device is said to be especially useful and valuable to insurance companies, record offices, manufacturing plants, oil companies, railroad companies, engineers and architects. Other individuals and organizations will also find it an important adjunct to their equipment. A duplex model makes copies on both sides of the sensitized paper.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers, or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Economical and Very Efficient Dump Grate. Simmons' patent hand stoker, clinker breaker, dump grate, which is manufactured by J. S. Schofield's Sons Co., Macon, Ga., is fully described and illustrated elsewhere in this issue of the Manufacturers Record. It is stated by the manufacturers that this grate does all that an automatic stoker can do except feed the fuel to the furnace automatically, giving equal increase in fuel economy and also increasing the efficiency of boilers, as it com-bines the advantages of an automatic stoker and the regular shaking or rocking grate, with the simplicity of the plain grate, and furthermore it eliminates the destructive expanding and contracting effects of heat, besides being extremely durable. Complete details are given in the announcement.

Plant Machinery and Equipment Sale. As announced elsewhere in this issue the plant of the Morris Metal Products Corporation at Bridgeport, Conn., is to be sold at auction on the premises at 10,30 A. M. on Thursday, August 31. The sale includes more than 500 lots of machinery and mechanical equipment and personal property, all free

from encumbrance. Further particulars will be found in the advertisement. J. E. Conant & Co., of Lowell, Mass., are the auctioneers, who will supply catalogs on application.

Branch Opened at Richmond.

The Cleveland Discount Co., of Cleveland, Ohio, capital and surplus over \$10,000,000 and resources over \$30,000,000, have opened branch offices in the Mutual Building, Richmond, Va., with D. D. Armstrong, who is well known there and in the Southeastern states, as the company's local representative. This company finances large building operations in the larger cities of the country and sells first mortgage real estate bonds to investors. Branch offices are also maintained in about 60 other cities. Geo. A. Harris, general manager for the company for Washington and the Southeast, is also well known in this section, having been for six years treasurer and director of the Federal Land

A RARE BARGAIN

Ready for Operation Anywhere-

Do you realize what this former Du Pont 5000 Hp. Boiler Plant is worth to you?

This former Du Pont Boiler Plant at Hopewell, Virginia, that we offer for sale represents the last word in powerhouse design, construction and equipment. It is practically new and represents Du Pont standards in every way. All of the equipment was bought and erected in 1918. The plant has been operated less than four months. The building and equipment has been kept up with the greatest of care and attention.

Its present wonderful condition can only be appreciated through an inspection. It is practically ready for immediate operation anywhere.

Here's a brief outline of the plant and what it contains:

5-1043-hp. Edgemoor Boilers, recently inspected.

5—Taylor Stokers, for operating the above boilers, driven by 3—American Blower Company's 7-in, x 7-in, Stoker Engines.

5—American Blower Company's 7-in. x 7-in. St.

3—16-in. x 14-in. Brownell Company engines and Massachusetts Blower Company Blowers. Each with an estimated capacity of 110,000 cubic feet of air per minute, all connected with wind box and air ducts to boiler settings.

Boilers are connected by steel breeching to a 15-ft. x 200-ft. stack. The boilers are set with ash hoppers beneath boiler setting to facilitate ash handling. Steel ash cars and industrial track for their operation make ash handling economical. There is an 800-ton coal bunker with

coal conveyor, larry track, larry to handle coal directly to the Taylor Stokers. The house is equipped with piping for steam boiler feed, blow off, drip and drains, steam and exhaust to stoker and blower engines and steam to the Vulcan soot blowers.

Three men for each shift should operate the entire plant. The plant operates at 175 lb. pressure.

The boilers with the aid of the Taylor stokers may be operated at 200% of their normal rating.

Building is constructed of Steel Frame covered with galvanized iron sheets. It is approximately 50 ft. wide, 150 ft. 9 in. long, 50 ft. from the ground level to the bottom of roof and has ventilators 7 ft. 4 in. high, above the firing alley in front of the boilers. Built on unit plan so that additions could be made easily if an increase in the capacity of the boiler would be desired.

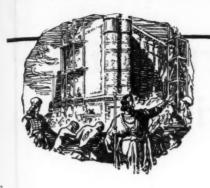
The plant may be bought with or without the building, which is easily taken down and re-erected where you need it.

Immediate inspection is especially solicited. Detailed information will be furnished either on the ground or by mail. Write or wire at once.

Set this plant up where you want it.

Industrial Salvage Company
Successors to
Du Pont Chemical Co.
Wilmington
Delaware

WHEN SOLOMON BUILT THE TEMPLE



THERE was no sound of mallet or chisel. Shaped at the quarry to fit exactly its appointed place, each stone swing true into position, despite the fact that this method multiplied the cost. Labor, time and money unreckoned were lavished to make the structure at once reflect Solomon's devotion and enhance his prestige.

IKE that temple of Solomon's, on the great structures of today most of the work on the materials has been done far from the scene of operations. But, in contrast to those days, this method today saves both time and money.

Concrete, a major material in modern construction, is the most flexible, adaptable and generally economical of all structural materials—and this in spite of the heavy investment in equipment and scientific standardizing methods of the modern Portland Cement Plant.

For over a quarter century Atlas Portland Cement has been used in structures ranging from the simplest to ones even more monumental than Solomon's temple. Throughout that time it has been known as "the Standard by which all other makes are measured."

THE ATLAS PORTLAND CEMENT COMPANY

NEW YORK
Boston

BIRMINGHAM Philadelphia CHICAGO

St. Louis

Dayton

Des Moines



ny

Industrial Opportunities Raw Material

The Seaboard Air Line Railway is in the Hydro-Electric Zone of the Carolinas, Georgia and Virginia.

Locations for industrial plants of all descriptions are available.

North Carolina produced about onetenth of the cotton crop of the United States in 1921-1922.

A look at the map will show Hamlet, N. C., with railroads in all directions, to be the center of a great raw material section of North and South Carolina.

Information in detail is available upon application to:

JESSE M. JONES, General Development Agent Seaboard Air Line Railway Norfolk, Va. 1922.

Quarries

are getting

1/more

3 per dollar



Branch Offices:
Birmingham Ala.
Boston Mass.
Buffalo N. Y.
Chicago III.
Denver Colo.
Duluth Minn.
Huntington, W. Va.
Kansas City Mo.
New York N. Y.
Pittsburgh Pa.
Portland Ore.

Du Pont Products Exhibit Atlantic City, N. J.

San Fran Scranton Seattle Spokane ''I am more than pleased to advise you that our trial blast of Dumorite, fired in our quarry at gave us very gratifying results.

"I, purposely, placed this powder in a very hard blast of holes 32 ft. deep, about 20 ft. back from the quarry face, which had a very heavy toe at the bottom.

"We found when the Steam Shovel reached this point, it had little difficulty penetrating through the blast. The bottom came out in fine shape.

"I like this new powder (Dumorite) so well that I have placed an order for some more to be delivered in our next carload."

Excerpt from letter of a user of Dumorite for large quarry operations.

Like most new products, Dumorite had to prove its value before it was accepted by the trade.

But often the results of a single shot with this new explosive changed the worst skeptic to the staunchest backer. Dumorite, stick for stick, has approximately the same strength as 40% dynamite; case for case, these two explosives cost the same. But in every case of Dumorite there are from 35 to 45 more sticks than in a case of 40% dynamite— $\frac{1}{3}$ more for your dollar.

Write our nearest branch office for further information.

E. I. du Pont de Nemours & Co., Inc.

Explosives Department

Explosives Department
Wilmington, Delaware

NON-HEADACHE QUPUND NON-FREEZING DUMORITE

THE LATEST OF A COMPLETE LINE OF DU PONT EXPLOSIVES

FIRST UNIT OF GREAT SOUTHERN PRODUCING AND REFINING CO.



Located at Shreveport, La., on part of a 57-acre site, this plant has a daily output of 4000 barrels of gasoline by the Forward process, and is so constructed that additional units may easily be constructed

FREEPORT Sulphur Company

LOCATION OF MINES
Freeport, Texas, Mouth of Brazos River

NEW YORK OFFICE 61 Broadway

SELLING AGENTS
PARSONS & PETIT, 63 Beaver Street, New York

Miners and shippers crude sulphur in carloads or shiploads. Guaranteed ninety-nine and onehalf per cent. pure.

Mines located at Tidewater on the Gulf of Mexico. Excellent facilities for prompt steamer loading. Complete service by rail.

Davison Chemical Co.

ESTABLISHED 1812

Largest and Oldest Sulphuric Acid Plant in the United States

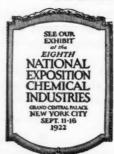
SULPHURIC ACID ALL GRADES

Also Manufacturers of

Acid Phosphate

OFFICERS:

C. WILBUR MILLER....President GEORGE W. DAVISON Vice-President E. B. MILLER.....Vice-President W. D. HUNTINGTON Vice-President J. R. WILSON.. Secy. and Asst. Treas.



MAIN OFFICE Garrett Building BALTIMORE, MD.

WORKS Curtis Bay, Md.

BRANCH OFFICE 2316 Equitable Bldg. New York

Yolande Coal & Coke Company

HIGH-GRADE 72 HOUR FOUNDRY COKE WASHED and SIZED BLACKSMITH COAL

Mines and Ovens at Yolande, Ala.

General Office: Brown-Marx Building BIRMINGHAM, ALA.

The Oscar T. Smith Company

Manufacturing Bank Stationers 407-9-11 E. SARATOGA STREET BALTIMORE, MD,

OSCAR T. SMITH Presiden 922.

Investment Bankers Power and Light Securities

issued by companies with long records of substantial earnings.

We extend the facilities of our organization to those desiring detailed information or reports on any of the companies with which we are identified.

Electric Bond and Share Company

(Paid-up Capital and Surplus, \$29,000,000)

71 Broadway

New York

WE BUY MUNICIPAL BONDS

Write us if your community is contemplating issuing bonds or has bonds to sell.

THE W. H. SILVERMAN CO.

309 Mercantile Library Bldg., Cincinnati, Ohio

Seasongood & Mayer Ingalls Bldg., Cincinnati, O.

County City School

Write us if you have any for sale.

MARYLAND TRUST COMPANY

BALTIMORE

Transacts a General Trust and Banking Business

Correspondence and interviews invited

CAPITAL,

\$1,000,000

NOTICE TO CONTRACTORS

We want to buy bonds issued by cities, towns counties, school, road or drainage districts that you may be able to take in exchange for work. Address us at our nearest office.

W. L. SLAYTON & CO.

New Orleans, La. Toledo, Ohio Tampa, Fla. Chicago, Ill. Glasgow, Mont.

MARINE BANK & TRUST COMPANY

New Orleans, Louisiana

Capital and Surplus \$2,300,000.00

General Banking - Domestic and Foreign

Correspondence Invited

We Buy

SOUTHERN MUNICIPAL Correspondence Solicited BONDS

CALDWELL & CO., NASHVILLE, TENN.

New York
Detroit
Cincinnati
Chattanooga
St. Louis
Knoxville

WE BUY

Municipal Bonds

THE ROSENSTIEL-ELLIS COMPANY

WE BUY MUNICIPAL BONDS

We are interested in the purchase of Southern Municipals including road, school, county, drainage and levee bonds.

M. W. ELKINS & CO.

Southern Trust Bldg.

Little Rock, Ark.

Contractors and Municipal Officials

We are always in the market TO PURCHASE

Good municipal bonds issued by cities, towns, counties and school districts

BREED, ELLIOTT & HARRISON

322 WALNUT ST.

CINCINNATI, OHIO

We Buy Bonds City, County, School and Road, from Municipalities and Contractors WRITE

THE PROVIDENT SAVINGS BANK & TRUST CO. CINCINNATI



HAMMERMILL LETTER HEADS

For Bank, Mill, Mine, Factory and Commercial House 8½x11—Full 20 lb. Weight 1000—\$5.35 5000—\$16.75 2000—8.70 10000—28.50

Shipped 48 Hours After Receipt of Order Charges prepaid to your railroad station Samples on request

LAREW PRINTING CO., Knoxville, Tenn.

TODD & McCOLLOUGH

Members of

AMERICAN SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS

Auditing, Cost and Accounting Systems, and Federal Tax Service.

No. 328 South Tryon St.

Charlotte, N. C.

First National Bank

RICHMOND, VIRGINIA

' Capital and Surplus, \$3,000,000.

J. M. MILLER, JR., President.
W. M. ADDISON, Vice-President.
CHAS. R. BURNETT, Vice-President.
ALEX, F. RYLAND, Cashier.

YOUNG & SELDEN COMPANY

MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.

TRADE IN CENTRAL EUROPE.

A Viennese Business Man's Comment on Conditions Commercial and Political.

Richard Mittler, 9 Rossauerlande 13, Vienna, Austria, writes to the Manufacturers Record under date of July 22 expressing very interesting opinions concerning business opportunities, etc., as follows:

"As to the possibility of doing business in American goods, this is absolutely unlimited, but the conditions of American manufacturers,-namely, cash with order,-are generally preventing any sales.

"You must understand this question in its right meaning: We do not expect American manufacturers to allow credits, especially under the unsettled conditions, and should like to pay on the spot, when goods will have arrived in a European port. We cannot tie up such important amounts which the smallest imports are figuring out today in Continental coinage, and lose so much interest, having to wait from three to four months until the goods arrive. Furthermore, we are continental people and therefore not familiar with sea freight rates and generally cannot figure out what the costs of transportation and insurance will be, which is another reason why we like to buy f.o.b. at a European port.

"The consequence is that American manufacturers, who will keep even a little stock in a European free port, as, for instance, Hamburg, can be sure of very important business allowing fine profits without any risk, as they would not have to pay any duty on their goods stored in the free port and would get payment in dollars, the very moment the goods were sold.

"Americans can sell any surplus American war surplus stock, which runs in the hundreds of millions of dollars, so far as I am informed, could be sold very advantageously, without harm to American manufacturers and, last but not least, would give labor to your unemployed labor.

"As to the special advantages that Vienna, as a center of Middle Europe's trade, is offering to Americans.

"As you well know, the former Austrian-Hungarian monarchy was divided by the peace treaty in a very rough and let's say, not very wise manner. On her territory arose the Austrian Rupublic, the Czecho-Slovac Republic, the new Poland Republic, the Hungarian Kingdom without a king, the Jugo-Slovak Kingdom with a king.

"They got their political independence, it is true, but it was not to be helped that each of these independent States became a considerable minority, which tends to separate again and to join one or the other of the neighboring States, so that the old foul play is still going on.

"What the new States did not get, however, is the financial independence from Vienna, notwithstanding their rate of exchange is far better than that of Austria. This because the old banking firms of Vienna, as for instance, of Rothschild, the Creditanstalt and so on, are not to be beaten by the new. unknown banker firms of the new States. The latter, even not liking to have to do with these Viennese banker firms, cannot help doing so.

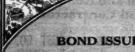
"Besides that, the geographical situation of Vienna predestinates to her all the transit business to the Balkan States. Rumania, Bulgaria, Servia, Turkey and Greece and the leading firms in these lands, are still coming to Vienna for purchasing goods, just so as their greatgrandfathers used to do.

"Twice a year there is held here a world's fair, where samples only are exhibited and to which come people from all the countries mentioned above, besides from Italy, Egypt, India, China and Japan.

"I should think it would be very useful for American manufacturers to open sample rooms here in Vienna for the inspection of all these buyers and, should some firms join for that purpose, the costs would be a trifle, the much more so as the standing of your exchange is so much in your favor.

"I personally should like very much to collaborate for this purpose with one or two American gentlemen, who would be in charge of that sample room business, and there is practically no article which would not have big sales here such as fine upper leather, worsted and knitted goods, shoes, typewriting machines, adding machines, check writing machines, food stuffs, (canned meat, frozen meat, wheat, flour, maize, lard, substitutes for lard, condensed milk, and milk powder), railway rails, locomotives, railway supplies, copper, cotton, wool, rubber, tobacco, and hides."

Preliminary plans prepared by G. Lloyd Preacher & Co., architects of Aflanta have been approved by the Cordele Hotel Co., which contemplates erection of a 75 room hotel in Cordele, Ga. Specifications and final drawings will probably be ready after September 1.



PROPOSALS

BOND ISSUES

BUILDINGS

GOOD ROADS

Bids close August 31, 1922

TREASURY DEPARTMENT, Office of the Supervising Architect. Washington. D. C. August 4, 1922.—SEALED PROPOSALS will be opened in this office at 3 P. M., August 31, 1922, for remodeling and extension of kitchen and mess building, etc., and for construction of new ward units Nos. I and 2, and isolation ward and quarters for nurses and for attendants (except mechanical equipment) for the United States Marine Hospital at Baittmore, Md. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. Proposals will be considered only from individuals, firms or corporations possessing satisfactory financial and technical ability, equipment, and organization to insure speedy completion of the contract, and who have established a record for expedition on contracts of similar character and magnitude. The fact that any concern obtains a set of the plans and specifications from any source whatever and submits a bid shall not constitute a waiver of the foregoing stipulations. Jas. A, Wetmore, Acting Supervising Architect. TREASURY DEPARTMENT, Office of the tions. Ja Architect.

BATE: 35 cents per line per insertion. PUBLICATION DAY: Thursday. FORMS CLOSE 4 P. M. Monday.

DAY LETTER: When too late to send copy by mail to reach us by 4 P. M. Monday, forward by day letter.

THE DAILY BULLETIN OF THE MANUFACTURERS RECORD:

Published every business day; gives information about the industrial, commercial and financial activities of the South and Southwest.

The Daily Bulletin can be used to advantage when copy cannot reach us in time for publication in the Manufacturers Record before bids are to be opened, or when daily publications are necessary to meet legal requirements.

The same rate applies-35 cents per line per insertion.

Bids close August 24, 1922.

\$40,000 5% Municipal Water and Light Bonds

\$500 DENOMINATION

The City of Quincy, Fla., offers its 5%, interest bearing bonds to the amount of \$40,000 serial bonds, \$2000 of same being payable and redeemable annually in sequence of their numbers beginning with number 117, July 1st, A. D. 1952 Interest payable semi-annually January and July first of each year after 1922. Sealed bids for the entire amount of City Electric Light and Water bonds will be received at the gust 24, 1922, at 3 o'clock P. M. A certified check or cashier's check for 5% of the amount of bid is required with each bid, and the right to reject any and all bids is reserved by the City.

(Signed) W. E. SHELIFER.

President of the City Council of the City of Quincy, Fla. (Signed) J. P. SMITH.

City Clerk. Quincy, Fla.

Bids close Sept. 6, 1922.

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Clerk.

Bids close Sept. 6, 1922.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., August 14, 1922.—SEALED PROPOSALS will be received at this office until 2 p. m., Sept. 6, 1922, and then opened, for remodeling third floor, in the United States Post office and Court House, Dayton, Ohio, in accordance with drawing No. 220 and the specification, copies of which may be had at this office or at the office of the Custodian, in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close September 18, 1922.

Bids close September 18, 1922.

TREASURY DEPARTMENT. Supervising Architect's office, Washington, D. C., August 21, 1922. — SEALED PROPOSALS will be opened in this office at 3 p. m., September 18, 1922, for the installation complete of one electric freight elevator for the U. S. Post Office, Worcester, Mass. Drawings and specifications may be obtained at this office in the discretion of the Supervising Architect. Jas. A. Wetmore, Acting Supervising Architect.

Bids close September 21, 1922.

U. S. Engineer Office, Jacksonville, Fla.—
Sealed proposals will be received here until
2 M. September 21, 1922, and then opened,
for jetty repairs at the entrance to St.
Johns River, Florida. Further information
on application.

Bids close September 5, 1922.

Bids close September 5, 1922.

PROPOSALS FOR STEEL OIL BARGES.

—U, S. Engineer Office. 329 Customhouse, New Orleans, La.—Sealed proposals will be received here until 9:00 a. m. Sept. 5, 1922, and then opened, for construction and delivery of two 4000-barrel steel oil barges in the Mississippi River, at New Orleans, La. Further information on application.

Bids close September 5. 1922.

PROPOSALS FOR SPURDIKE CONSTRUCTION.—U. S. Engineer Office. 329 Customhouse, New Orleans, La.—Sealed proposals will be received here until 9:00 a.m., Sept. 5. 1922. and then opened, for construction of spurdikes at Head of Passes, Mississippi River. Further information on application.

Bids close September 18, 1922.

unts cuose September 18, 1922.
U. S. Engineer Office. Florence, Ala.—Sealed proposals will be received here until 11 A. M., September 18, 1922, and then opened, for furnishing and delivering one hydraulic turbine of 1000 horsepower capacity, with governor. Further information on application.

Bids close September 18, 1922.
U. S. Engineer Office, Florence, Ala.—Sealed proposals will be received here until 11 A. M., September 18, 1922, and then opened, for the construction and delivery of two steel barges. Further information on amplication.

Bids close September 5, 1922.

U. S. Engineer Office, Mobile, Ala.— Sealed proposals will be received here until Il o'clock A. M., September 5, 1922. and then opened, for dredge pontoons and dis-charge pipe for the U. S. 20-inch hydraulic pipe-line dredge Wahalak. Further informa-tion on application.

\$40,000 6% Bonds

Morehead City. N. C.
FOR SALE — Forty Thousand Dollars
(\$40,000), Sh-year, 6% bonds: Town of
Morehead City, interest payable semi-annually authorized by special account of
Legislature with authority to make public
or private sale. For information write
E. H. Gorham.

\$17,000 School and Light Bonds

New Brockton. Ala.

Town of New Brockton alla.

Town of New Brockton offers for sale \$17,000 School and Light Bonds. The issue and voted on June 26 and carried by large majority. The issue runs 30 years and carries a rate not exceeding 5%. Town of New Brocton is a thrifty wide awake title town located in Coffee County. Ala. on the Atlantic Coast Line railroad and is entirely out of debt. not owing anything for bonds or floating debt. The town carries a nice balance all the year 'round and its management has been ideal for the past 12 years. The legal matters pertaining to the election for the bond issue was handled by one of the best attorneys in the State of Alabams.

HON. E. M. DISMUKES, Mayor.

Sids close September 4, 1922. \$150,000.00 6% General Municipal Bonds

Bonds

Plant City, Fla.

Plant City City of Plant City, Fla.

Plan

Bids close September 4, 1922.

\$170,000 Bonds

Bids will be received by the Mayor ond Board of Aldermen of the City of Corinth, Mississippi on Monday September 4th, 1922 at 8 P.M. for the sale of \$100,000.00 Bonds for a Municipal Electric Light and Power plant and \$70,000.00 for Water Works and Sewer Extensions. plant and \$70.000.00 for the plant and \$70.000.00 for the plant of the plant reserves the right to reject any and all bids.

Certified check for 2% of total amount to accompany all bids.

M. T. Sharp, City Clerk.

Bids close September 18, 1922. \$100,000 6% Sebastian Inlet District Bonds

Sebastian, Fla.

Sealed bids will be received by the Commissioners of Sebastian Inlet District up to the hour of two P. M. September 18, 1922, for the purchase of \$100,000, par value of Sebastian Inlet District bonds: each bid shall be accompanied by certified check for \$1000, payable to the order of the Board of Commissioners of Sebastian Inlet District, and the right is reserved to reject any and all bids.

or Commissioners of Sebastian linet District, and the right is reserved to reject any and all bids.

All bids shall specify the amount of bonds bid for and the time when the bidder will comply with his bid, and shall also specify whether or not the bid is in current money of the United States of America.

Said bonds consist of one hundred coupon bonds known and designated as Sebastian Inlet District bonds in the denomination of \$1000 each, dated July 1, 1921, bearing interest from date at the rate of six per cent per annum, interest payable semi-annually on January first and July first of each year. Bonds, principal and interest payable to bearer at the office of United States Mortgage and Trust Company, New York City, New York, said bonds being serially numbered from one to one hundred, both inclusive. The principal of said bonds being payable July first of each year as follows: Eight payable one each year during the years 1923 to 1930, inclusive. Six payable two each year from 1931 to 1933, inclusive. Nip payable three each year 1934 to 1936, inclusive. Six pears from 1946, inclusive. Fifteen payable five each year from 1941 to 1943, inclusive. Eighteen payable six each year from 1946, inclusive. Twenty-eight payable seven each year from 1947 to 1950, inclusive.

Address all bids to M. M. Miller, Secretary.

clusive.

Address all bids to M. M. Miller, Secretary of Board of Commissioners, Sebastian Inlet District, Sebastian, Fla. or bids may be handed the said Secretary up to the hour of two P. M.. September 18, 1922, and the said Board of Commissioners, Sebastian Inlet District will convene at the office of W. G. Tubbs, Melbourne, Fla., two P. M., September 18, 1922, for consideration of bids. Published by order of the Board of Commissioners, Sebastian Inlet District.

M. M. MILLER, Secretary.

Bids close September 11, 1922,

\$50,000 6% Water Bonds

San Benito, Tex.

San Benito, Tex.
Until eight o'clock P. M., September 11th,
1922 the City of San Benito, Tex. will
receive proposals on \$50,000 of Water, Electric and Sewer Bonds, serial 2 to 30 years
6%.

For information address CHAS, GREENSLADE, City Clerk.

Bids close August 29, 1922.

Concrete and Gravel Highways

STATE OF MARYLAND STATE ROADS COMMISSION NOTICE TO CONTRACTORS

Baltimore, Md.

STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Baltimore, Md.

SEALED PROPOSALS for building elght sections of State Highway, as follows:
ALLEGANY COUNTY—Cont. A-21—One section of state highway from Cumberland toward Old Town for a distance of 3.0 miles—(Concrete).

FREDERICK COUNTY—Cont. F-57—One section of State Highway from Middle-town toward Burkitsville, a distance of 4.0 miles. (Concrete.)

HOWARD COUNTY—Cont. HO-27—One section of state highway from Laurel toward Scaggaville for a distance of 2.0 miles.—(Gravel).

HOWARD COUNTY Cont. HO-30 One section of state highway from Wash. Blvd. near Savage toward Simpsonville a distance of 2.0 miles.—(Gravel).

ANNE ARUNDEL COUNTY—Cont. AA-25—One section of state highway from Eastport toward Bay Ridge for a distance of 1.0 miles.—(Concrete).

CALVERT COUNTY—Cont. C-13—One section of state highway from Yoes Corner toward Broomes Island a distance of 2.5 miles. (Gravel).

CHARLES COUNTY—Cont. C-13—One section of state highway from Nanjemory to Riverside a distance of 3.9 miles.—(Gravel).

ST. MARY'S COUNTY—Cont. CH-21—One section of state highway from Chingville to Valley Lee, a distance of 4.0 miles.—(Gravel).

ST. MARY'S COUNTY—Cont. SM-20—One section of state highway from Chingville to Valley Lee, a distance of 4.0 miles.—(Gravel).

ST. MARY'S COUNTY—Cont. SM-20—One section of state highway from Chingville to Valley Lee, a distance of 4.0 miles.—(Gravel).

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission and plans will be furnished by the Commission and plans will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond. and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any and all bids.

General Assembly occurrences.

The Commission reserves the right to reject any and all bids.

BY ORDER of the State Roads Commission this 10th day of August, 1922.

L. H. STEUART, JOHN N. MACKALL,

Secretary. Chairman.

Bids close September 9, 1922.

Grading and Surfacing Class "A" Road

Welch, W. Va.

Welch, W. Va.

SEALED PROPOSALS will be received by
the County Court of McDowell County, at
Welch, McDowell County. West Virginia,
until 10 A.M. Sept. 9, 1922. For the re-grading (From 16 to 26 feet sub-grade) and the
construction of 16-foot hard surface class.
"A", of Kentucky Rock Asphalt, or other
approved type of Asphaltic surface on
crushed rock base.

The work to include all clearing, pipe or
concrete culvert drains, etc.

Bids are desired on Project No. 2165, Five
and one-half miles.

Work will be done according to plans and
specifications approved by the State Road
Commission of West Virginia.

Each bid must be accompanied by a certified check for 5% of the total amount of the
Ind.

The McDowell County. Court reserves the

The McDowell County, Court reserves the right to reject any and all bids. For further information address the undersigned:

W. J. McCLAREN, County Road Engineer.

Bids close September 7, 1922.

Road Improvements.

SUMTER COUNTY PERMANENT ROAD COMMISSION

SUMTER COUNTY PERMANENT ROAD COMMISSION

Notice is hereby given that sealed proposals will be received by the Sumter, S. C. Nosice is hereby given that sealed proposals will be received by the Sumter Councity Permanent Road Commission at the City Council Chamber in Sumter, S. C. until 10 o'clock A. M. September 7th 1922 for the grading, drainage structures and several types of Hard Surface Pavement on the following roads.

Bishopville Road Sec. "B". 4.3 miles. Pinewood Road Sec. "B". 4.3 miles. Mayesville Road Sec. "B". 4.3 miles. To suppose the summer of the work is bid on as a whole, a check of \$4000 must be submitted.

Plans for the work may be seen at the office of the Engineers, Lec. Pennell & Murray, Sumter, S. C. Specifications and proposal forms may be obtained from the engineers upon request accompanied by a check for \$5000 must be obtained from the engineers upon request accompanied by a check for \$500 miles. Plans and specifications for Sec. "B" of the Mayesville Road may be obtained from the State Highway Department, Columbia, S. C.

The right is reserved to reject any or all bids and to laive all technicatures.

SUMTER COUNTY PERMANENT ROAD COMMISSION, Sumter, S. C.

Eleg. PENNELL & MURRAY.

Engineers, Sumter, S. C.

Bids close September 4, 1922.

Bids close September 4, 1922.

Street Construction

Street Construction

Pine Bluff. Ark.

Sealed bids will be received by the Commissioners of Paving District No. 60, of the City of Pine Bluff. Ark, at the office of J. M. Shaw. Attorney for the District. up to 2.00 P. M., September 4, 1922, at which time they will be opened and read.

Approximate quantities on the work, including both the construction of the paving and the curb and gutter, are as follows.

12,380 cu. yds. earth excavation.

37,308 sq yds. reinforced concrete pavement 1.2:3 mix.

23,200 linear feet combination curb and gutter.

1,620 linear feet 12" storm sewer pipe.

1,140 linear feet 15" storm sewer pipe.

1,140 linear feet 18" storm sewer pipe.

614 linear feet 21" storm sewer pipe.

614 linear feet 24" storm sewer pipe.

614 linear feet 24" storm sewer pipe.

616 linear feet 18" storm sewer pipe.

617 cu. yds. Class "A" Concrete.

33 inlefs as per plans.

Copies of the plans and specifications, together with proposal form, can be obtained from Fred Bennett. Engineer for the District, Pine Bluff. Arkansas, upon receipt of Five (\$5) Dollars corrilated check or bidder's bond in the sum of Five Thousand (\$5000) Dollars must accompany each proposal, the check or bond to be made particle. H. B. Russell, Secretary of the District of H. B. Russell, Secretary of the

Bids close September 5, 1922.

Water Works Improvements

Water Works Improvements

Richton, Miss.

Sealed proposals will be received by the Water Works Committee. Richton, Miss., until two o'clock P. M., Tuesday, September 5th, 1922 and then publicly opened for furnishing all Labor and Material required to install approximately 3200 Ft. 6" Cast Iron Water Pipe. 6300 Ft. 4" Cast Iron Water Pipe, 14 Fire hydrants and valves and cutouts. A certified check or deposit of \$400.00 is required with each proposal. A Bond for full amount of sum bid in proposal is required with notarial contract. Proposals will also be received to furnish Labor and Material required for above separately. The right is reserved to reject any and all bids and waive informalities. Plans and specifications are on file with Water Works Committee, Richton, Miss., and will be furnished to prospective bidders upon application to

GUS ROUFF, Chairman.

GUS ROUFF, Chairman.

Bids close September 25, 1922. Spavinaw Water Project

Bids close September 25, 1922.

Spavinaw Water Project

NOTICE TO CONTRACTORS

Tulsa, Okta.

Sealed proposals for the construction of the major portion of the Spavinaw Water Supply Project for the City of Tulsa, Okla., will be received by the Water Commission of the City of Tulsa, and may be filed at the office of tulsa, and may be filed at the office of Tulsa, and may be filed at the office of Tulsa, and may be filed at the office of Tulsa, and will be opened and publicly read immediately thereafter at a regular meeting of the Water Commission of the City of Tulsa at 3:00 p. m., Monday, September 25, 1922, and will be opened and publicly read immediately thereafter at a regular meeting of tulsa at 3:00 p. m., Monday, September 25, 1922. Proposals will be received on the following contracts: Contract No. 1—Telephone Line.

Contract No. 3—Spavinaw Dam.

Contract No. 3—Spavinaw Dam.

Contract No. 5—Tunnel and Approaches.

Contract No. 5—Tunnel and Approaches.

Contract No. 6—54-inch Reinforced Concrete Pipe.

Contract No. 5—Furnishing Cast Iron or Steel Pipe and Specials.

Contract No. 10—Laying Cast Iron or Steel Pipe.

Contract No. 11—High Pressure Reservoir.

After the reading of the bids on these

voir.

After the reading of the bids on these contracts they will be immediately considered, but in no event will any contract or contracts be awarded earlier than forty-eight (48) hours thereafter.

The principal quantities are approximately as follows:

DAM: Concrete, 79,000 cubic yards.

Earth Embankment, 182,000 cubic yards.

mately as follows:
DAM: Concrete, 79,000 cubic yards.
Earth Embankment, 182,000 cubic yards.
PIPE: 28 miles of 60-inch and 25 miles of 54-inch pre-cast reinforced concrete pipe.
Earth Excavation in trench, 310,000 cubic yards.
Rock Excavation in trench, 26,000 cubic yards.
TUNNEL: 7000 feet 84-inch Tunnel.
3050 feet 84-inch monological process of the property of the process of t

any proposal must include all items under the contract or contracts for which bid is tendered.

Plans. specifications and requirements for bidding and instructions to bidders, are on file at the office of the Water Commission at the City Hall and may be seen at the office of Trammell & Holway, Engineers, on the Spavinaw Water Supply Project, 329 Kennedy Building, Tulsa. Okla., or at the office of Dabney H. Maury, Consulting Engineer for said project, 1445 Monadnock Block, Chicago, Ill. Complete plans and specifications will be furnished by the Engineers or by the Consulting Engineer, upon the deposit of \$50 by check payable to Trammell and Holway. Upon return of the plans and specifications in good condition within a reasonable time after the awarding of the contracts, \$30 will be refunded. Proportionatt deposit and refund may be arranged for if bidder desires only parts of the plans.

The Water Commission reserves the right to reject any bid or bids, or all bids, and to waive any informalities.

WATER COMMISSION OF THE CITY OF TULSA.

A. J. Rudd, Chairman.

G. R. McCullough

C. S. Avery

H. L. Standeven

A. L. Farmer

Roy Garbett, City Auditor Trammell and Holway, Engineers 329 Kennedy Building, Tulsa, Okla.

Dabney H. Maury, Consulting Engineer Chicago, Ill.

Bids close August 29, 1922.

Water Works Improvements

Water Works Improvements

Charlotte, N. C.
Sealed proposals will be received by the Mayor and Clerk of the City of Charlotte, N. C. until eleven o'clock A. M., on Tuesday, the 29th day of Angust, 1922, for Water Works Improvements.

The work will embrace a Mechanical Filtration Plant of reinforced concrete having an approximate capacity of eight million (8,000,000) gallons per day; Tower and Tank having a capacity of one million (1,000,000) gallons; Surge Tank; Wash Water Tank; Centrifugal Pumps and Filtration Equipment with reinforced concrete Clear Water Basin of three million (3,000,000) gallons capacity; Reinforced Concrete Chemical House and Mixing Chamber and Alum Storage House.

Plans and Specifications are on file with the City Clerk at Charlotte, N. C. and with Engineer at Durham, N. C. and blank forms of Proposal, Specifications, etc. may be obtained from the Engineer without charge.

be obtained from the Engineer without charge.

Those desiring prints either in full sets or separate prints can obtain same by paying the cost of the prints.

Certified check for five per cent (5%) of the amount bid for such items for which a proposal is made must accompany all proposal. proposals.

The right is reserved to reject any or all

EDGAR READ, City Clerk. J. O. WALKER, Mayor.

Engineers:
WILLIAM M. PIATT.
Durham, N. C.

Bids close August 30, 1922.

Sewers

Anniston, Ala.

Bids will be received at the office of the City Clerk until 12 M. August 30, 1922, for furnishing all material and labor to construct any or all of the sanitary sewers in the City of Anniston. Ala. covered by ordinances Nos. 167, 168, 169.

A certified check for \$500 shall accompany each bid or proposal. The right to reject any or all bids is reserved by the City of Anniston. Plans and specifications can be seen at the office of the Mayor.

H. B. RUDISILL, Mayor.

Bids close September 14, 1922.

Paving, Sewers, and Sidewalks

Paving, Sewers, and Sidewalks
Gulfport, Miss.
SEALED PROPOSALS will be received by
the Mayor and Board of Commissioners of
the City of Gulfport, Miss., until 10:00
o'clock. A. M., September 14, 1922, for furnishing all labor, materials and other things
necessary for the proper construction and
completion of a system of street paving
storm water drainage system, and sidewalk
improvements as more specifically described
in the plans and specifications now on file
in the office of the City Engineer.
The following approximate main quantities are involved:
9680 sq. yds. Brck, Asphaltic Cncrete, or
Reinforced Concrete Pavement.
6 Manholes, complete.
3 Gutter Basins, complete.
3 Gutter Basins, complete.
40 Catch Basins, complete.
500 lin. ft. 6-in. pipe.
500 lin. ft. 8-in. pipe.
510 lin. ft. 13-in. pipe.
510 lin. ft. 13-in. pipe.
511 lin. ft. 13-in. pipe.
512 lin. ft. 15-in. pipe.
513 lin. ft. 15-in. pipe.
5140 lin. ft. 24-in. pipe.
515 sq. yds. Sidewalk.
518 sq. yds. Driveways and Street
Crossings.
518 of the Concrete Curb
and Gutter.
510 cu. yds. Extra Grading.
5200 ft. Foundation Lumber.
The paving and dramage system will be
let as one contract and the sidewalk improvements may be let separately. Contractors may bid on one or both contracts.
520 Each proposal must be accompanied by
530 certified check equal to 5% of the total
531 amount of the bid. The successful contractor will be required to furnish surery
bonds for the full amount of the contract.
532 Printed copies of the plans and specifications may be obtained from the City Engineer
533 price and proposal must be accompanied by
540 certified check equal to 5% of the total
540 amount of the bid. The successful contractor will be required to furnish surery
bonds for the full amount of the contract.
540 Printed copies of the plans and specifications may be obtained from the City Engineer
540 Proposal must be reputated to repetation and specifications may be obtained from the City Engineer.
540 Pr. KEARSE, Commissioner.
650 Pr. KEARSE, Commissioner

Bids close September 14, 1922.

Paving and Sewers

Paving and Sewers

Mobile, Ala.

Sealed bids will be received until noon Thursday, Sept. 14, 1922 by the City Commission of the City of Mobile, Alabama, for the following:
One course Concrete Paving six inches in thickness—29,756 Square Yards. Concrete Curbing eighteen inches deep by five inches vide—14,512 lin. ft. Double strength storm sewers 12: inch—1324 ft. 15 inch—1160 ft. 18 inch—2405 ft. 21 inch—3036 ft. 10 inch—1872 ft. 12 inch—1340 ft. 15 inch—315 ft. 24 Standard Manholes, S3 Standard Inlets and 10 Standard Special Basins. A deposit of One Thousand Dollars will be required to accompany each bid. 1—Forlying and Curbing. 2—For Storm Sewers. Plans and specifications are on file in the City Engineers office and can be seen on application. The right is reserved to reject any or all bids.

R. V. TAYLOR,
Commissioner of Streets,
WRIGHT SMITH,
City Engineer

Bids close August 30, 1922.

Library Building

Sealed proposals will be received by the Commissioners of the City of Orlando, Fla. at the office of the City Clerk on or before Wednesday, August 30, 1922, at 11 o'clock A. M., at which time and place bids will be opened for the construction of a library building.

be opened for the construction of a intrary building.

Proposals must be accompanied by a certified check for one thousand (\$1000), dollars, made payable to the said City Commissioners, E. G. Duckworth, Mayor, as an evidence of good faith and a guarantee to furnish bond as required within ten dayafter the award of the contract. A bond will be required to be furnished by the successful bidders at their or its own expense in an amount equal to 30 per cent of the contract price. The surety upon said bond shall be a surety company authorized to do business in the State of Florida, and the surety as well as the form of the bond must be approved by the City Commissioners.

must be approved by the City Commissioners.

Plans and specifications may be obtained from Murry S. King, Architect, at his office in the Rock Building, corner of Orange Avenue and Oak Street, Orlando, Fla., upon the deposit of \$25.00, which sum will be refunded upon the return of the plans and specifications in good condition to the Architect. The City Commissioners may, within their discretion, reject any and all bids if they deem the same expedient by order of the City Commissioners.

J. C. BERNARD, Clerk.

Bids close September 8, 1922.

Bridge

Bids close September 8, 1922.

Bridge

Vicksburg, Miss.
Sealed alternate bids will be received by the Board of Supervisors of Warren County, Miss, at the office of the Chancery Clerk until 12 o'clock noon Friday, September 8, 1922 and at that time publicly opened for a bridge over Big Black River at Baldwin's Ferry 12 miles from Vicksburg, Miss., on the Baldwin's Ferry Highway between Vicksburg and Raymond.

The principal items of work are as follows, approximately:
346.20 Cu. Yds. Class "A" Concrete 9730 Lbs. Reinforcing Steel 128000 Lbs. Structural Steel.
171.8 Sq. Yds. Asphalt Paving 307 Lin. ft. Gas Pipe Railing 183940 Ft. B. M. Crososted Lumber 16310 Ft. B. M. Crososted Lumber 16310 Ft. B. M. Crososted Lumber 1630 Lin. Ft. Untreated Piling and for all materials in connection with said work.

Plans and specifications are on file in the office of the Chancery Clerk, Vicksburg, Miss. and the office of Warren County Dept. Highway. On receipt of check for \$5.00, contractors will be furnished with a set of plans and Bidder's Blank.

Any additional information may be secured from H. R. Rhodes, Warren County Highway Engineer, Vicksburg, Miss. The right to reject any or all bids is reserved. Cash or certified check for \$2500 made as the bidder will execute the contract and give bond as required.

By order of the Board of Supervisors of the bidder will execute the contract and give bond as required.

By order of the Board of Supervisors.

Bids close September 14, 1922.

Steel Bridge

Nashville, Tenn.
Sealed bids will be received by the Department of Highways, State of Tennessee, at Nashville, Tenn., until 10 o'clock A. M., Thursday, September 14, 1922, and opened publicly at that place and hour for the construction of the steel super-structure of Federal Aid Project 16, being a bridge over Cumberland River near Clarksville, having

Cumberland River near Clarksville, having a steel spans aggregating approximately 640 feet of span.

Plans and specifications are on file in the office of the Chief Engineer, Department of Highways, Nashville, Tenn., in the office of the Division Engineer, Department of Highways, Nashville, Tenn., and in the office of the Resident Engineer, Department of Highways, Clarksville, Tenn.

D. Q. McCOMB, Chief Engineer.

Bids close September 6, 1922.

Three School Buildings

Lancaster, S. C.

Three School Buildings

Lancaster, S. C.

Sealed proposals will be received by the Board of School Trustees of Lancaster School District, Lancaster, S. C., at 2 o'clock P. M., Wednesday, September 6th, 1922, at the office of the Secretary-Treasurer of the School Board, for the erection and completion of three (3) School Buildings in the City of Lancaster, South Carolina.

Bids will be taken separately for each building; for two buildings, and for all three buildings.

Plans and specifications may be obtained upon application to the Architect, J. Carroll Johnson, 1615 Richland Street, Columbia, S. C., upon deposit of twenty-five (\$25.00) Dollars, which amount will be refunded when Plans and Specification are returned in good condition not later than the date set for the submission of bids, and provided a bona fide bid be made at stated date.

The full cheque will be retained provided either or both of the above conditions are not complied with.

As evidence of good faith a certified check in the sum of One Thousand (\$1000.00) Dollars, must accompany each bid. The cheque of successful bidder will be held until contract is signed and bond filed. Sub-Contractors may secure such portions of plans and specifications as they desire at current blue print prices.

All plans, whether paid for or not, are sumed for use on these buildings only, and remain the property of the architect and must be returned to him.

The right is reserved to reject any or all bids.

Il bids.

Drawings and specifications may be seen the offices of the Architect, also in the ffices of the Architect, also in the ffices of the Builders Exchange, Columbia, S. C. Builders Exchange, Greenville, S. C. Chamber of Commerce, Charlotte, N. C. Secretary School Trustees, Lancaster, S. C. LEROY SPRINGS, Chairman, G. W. WILLIAMS, Secretary.

Bids close August 31, 1922.

Transmission Line, Distribution System, Etc.

Bystem, Etc.

Maysville, S. C.

Bids will be received at the office of the Commissioners of Public Works, Town Hall, Maysville, S. C. until 2 P.M. August 31st, 1922, for the erection of 13,200 volt or 6600 volt transmission line, 2300 volt distribution system, and two substations.

Specifications will be furnished upon request accompanied by check for \$10,00 to cover return. Drawings will be on file at office of Engineers, Columbia, S. C., and at office of the Chairman, Commissioners of Public Works, Maysville, S. C.

Right is reserved to reject any or all bids.

P. M. TILLER, Chrmn.

Ryan Engineering Co., Engineers.

Bids close September 12, 1922.

Incinerator

The Board of Commissioners of the City of Knoxville, Tennessee, will, until Tuesday, September, 12th, 1922, 10 o'clock A. M., receive sealed bids for the construction of one UNIT INCINERATOR. Net cost not to exceed \$70,000.

Survey and Contour Map of the property on file in the office of the Engineer, Knoxville. Tennessee.

on file in the omce of the Engineer, and ville, Tennessee.

Address all bids to the undersigned Recorder at his office in the City Hall.

JOHN L. GREER,

Recorder & Treasurer,

City of Knoxville, Knoxville, Tenn.

Power Station, Equipment and **Water Mains**

Sealed proposals will be received by the Utilities Commission of the City of Orlando, Orange County, Fla., on Wednesday, August 30, 1922, until 9 A. M., and at that time publicly opened for the following:

and at that time publicly opened for the following:
Power Station and equipment, and the laving of certain water mains.
Separate sealed bids will be asked on the different items, and each bid shall be accompanied by a certified check made payable to the order of W. T. Bland, Chairman, in the sum of ten per cent (10%) of the amount bid.
Plans and specifications may be seen in the office of the City Engineer in the First National Bank Building of Orlando after August 16th. All proposals shall be filed with the City Clerk and endorsed across the envelop as to the item for which bid is made.

the envelop as to the result is made.

The Utilities Commission reserves the right to reject any and all bids.

ALVORD, BURDICK & HOWSON,

Consulting Envineers.

Chairman Utilities Commission.

Drainage Ditching

Want to contract with some dry land drag-line company, 50,000 or more yards of plantation drainage ditching near Clarks-dale. Ditches range from three to eight feet bottom, depth three to ten feet. Would also be interested in purchase of suitable machine for such work.

SYD. L. DODDS,
CLARKSDALE, MISS.

Bids close September 5, 1922.

Road Oil

Road Oil

Koxville, Tenn.

of Knoxville, Tenn., will until Tuesday,
September 5, 1922, at ten o'clock A. M., recelve sealed bids for from four (4) to six
(6) cars of road oil.

Specifications on file in the office of the
City Engineer.

Address all bids to the undersigned Recorder at the City Hall.

This 16th day of August, 1922.

J. B. McCALLA, Commissioner
Streets and Public Improvements.

JOHN L. GREER, Recorder.

Bids close September 4, 1922.
Boilers, Heater, Pumps, Etc.

Sealed proposals will be received until September 4, 1922, by the City of Poteau, Okla. September 4, 1922, by the City of Poteau, Okla., for all or part of the following: 2—35 H. P. Boilers, Brownell Company, 1—Stilwell Heater, Platt Iron Works, 1—Platt Pump, 9"x14"x8½"x15", 8" Suction and Discharge, 1—Platt Pump, 14"x8½"x15", 8" Suction and 6" Discharge, 1—6" Valves, 2—8" Valves.

EARL WYATT. City Clerk.

Bids close September 6, 1922. Gas Street Lamp Fixtures and Maintenance

Maintenance
OFFICE OF SUPERINTENDENT
OF LAMPS AND LIGHTING
CITY HALL
Baltimore, Md., Aug. 16, 1922.
Bids in duplicate will be received in sealed envelopes at the office of the City Register, City Hall, Baltimore, Md., until eleven (11) o'clock A. M., Wednesday, September 6, 1922, marked "PROPOSALS FOR GAS STREET LAMP FIXTURES AND MAINTENANCE."
Bids must be in accordance with specifications to be had at the office of the Superintendent of Lamps and Lighting, City Hall, Baltimore, Md.
A bond in amount equal to the contract price will be required.
A certified check of the bidder, on a Clearing House Bank, made payable to the order of the Mayor and City Council of Baltimore, for the sum of two thousand (\$2000) dollars must accompany each bid.
The Board of Awards reserves the right to reject any or all bids.

Supt. of Lamps and Lighting Approved, August 16, 1922
HOWARD BRYANT,
Acting Prest, Board of Awards.
Approved, August 14, 1922
FRANK DRISCOLL.
Assistant City Solicitor.

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the City Mayor.

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CLASSIFIED OPPORTUNITIES

MINERAL AND TIMBER LANDS WATER POWERS, MISCEL-LANEOUS PROPERTIES.

FOR SALE OR EXCHANGE—3441 acres. Natural Bridge, Va. Timber, Manganese, Iron. Silica. Expert reports on same. Geo. D. Hodgin, Winston-Salem. N. C.

The Iuka Insurance and Real Est. Co., Iuka, Miss., has Building Stone, Bauxite. Iron Ore, Kaoline, Phosphate Rock, Oil Shale, Silica and Oil Leases (not stock) for sale. Also Real Estate. These properties lie in Tishomingo County, Miss., and Colbert County, Ala.

WE HAVE LISTED FOR SALE OR EXCHANGE. In all parts of the country, 42 Timber Tracks; 63 Lumber and Coal Yards; 39 Saw Mills; 56 Flour Mills; 27 Feed Mills; 39 Saw Mills; 56 Flour Mills; 27 Feed Mills; 18 Grain Elevators; 12 Gas and Electric Plants; 29 Manufacturlug Plants; 18 Coal Lands and Mines; 12 Plantations; 122 Farms; 4 Street Railways; 13 Hotels; 56 Apartment Buildings, and various other properties. When you write us what you wanto buy and where, for cash or in trade for your properties, you get at once several selections with all details. We dig out the facts before we list them and see that the price is right. OWNERS! For quick sale list your properties with us. Have made 46 sales and exchanges this year. We also buy and sell Timber Stocks and Bonds, like Frost Johnson, Gulf Lumber, Chicago Mill and Lumber, Tremont Lumber, Pacific Spruce Corp., Kirby Lumber. MAKE MEMO. OF THIS FOR FUTURE REFERENCE. PAUL PLOTZ & CO., First National Bank Building, Chicago, Ill.

COAL LANDS AND MINES

FOR SALE—Going coal mines—coal, oil and gas lands—timber tracts. Reports made on same anywhere. E. H. Morris, Box 518, Charleston, W. Va.

MANGANESE PROPERTY

FOR SALE—145 acres, high grade Manganese property, 47% Manganese, one mile Southern R. R. Ample timber for all purposes. A bargain. Phil Grasty, Danville, Va.

TIMBER

FOR SALE—A very attractive timber proposition of 25 million feet of virgin long and short leaf pine and 3½ million feet of hardwood, located in Macon County, Ala., 6 miles from railroad. Shipping point on W. of A. 8-2board, and C. of Ga. railroads. Price \$3.00 per thousand stumpage. For further information apply to Box 242, Bessemer, Ala.

FOR SALE—Thirty-four million feet exceptionally fine grade short leaf pine roofer timber near railroad; large per cent will cut clear lumber. All fee simple and long lease; several million feet more can be secured nearby if wanted. If purchaser desires, arrangements could be made to have 5 or 6 mills to saw, load, dress and ship the entire location by contract if trade is closed right away. This is undoubtedly the best tract of short leaf pine roofer timber in Georgia and is all situated so as to be handled at a good profit. Address Box 15, Route No. 1, Wayside, Ga.

TIMBER LAND

100 million feet virgin long leaf yellow pine on 34,560 acres, two miles railroad, three miles water. \$7.00 per acre in fee simple. J. B. Brewton, Vidalia, Ga.

FARM AND TIMBER LAND

11,200 acres Colorado farm and cattle ranch, \$30 acres 10,240 acres Florida muck. richest land, \$15 acres 83,090 acres Florida Virgin pine, \$10.50 acres 429,000 acres Old Mexico, magnificent oak, pine and valley, 35 cents acre. A. M. Riedesel, Denver, Colo.

Write for our new farm land list, Exceptional Bargains, A. J. Heyden Realty Co. Little Rock, Arkansas.

RATES AND CONDITIONS

Rate \$0 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check. postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements in excluding undesirable advertisements in excluding undesirable advertisements in excluding undesirable advertisements of our mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 28c. per line; \$00 lines, 26c. per line:

FARM FRUIT, AND TRUCK LAND

ALABAMA

FOR SALE—241-acre farm; about 60 in cultivation; 4-room house, barn, about 80 acres in good, red oak timber, some pine. Owner leaving state. Offer for \$3.50 per acre. A fine investment. Address Box 217, Haleyville, Ala.

FLORIDA

COME TO FLORIDA this summer, and enjoy a real vacation, where the breezes blow all the time. Summer resort excursion rates; inquire of your local railroad agent. We have a home, grove or farm for you. Send for booklet and 1922 summer list. Tampa-West Coast Realty Co. Opp. Post Office, "Since before the War". Tampa, Fla.

Five to six thousand acres high grade citrus and truck lands, in flowing well district, on Dixle Highway and A. C. L. Railroad between Orlando and Tampa. Splendid terms and a wonderful price to a quick buyer. Best colonization proposition in Florida. Wilmott & Co. Since 1883. Orlando Fla buyer. Be Florida. W lando, Fla.

WEST FLORIDA—85,000 acres cut over land; R. R. through center, fronts on bay. including town with 100 houses, well adapted truck, satsuma oranges, pecans, general farming. Finest colonization proposition ever offered at \$3.50 per acre. Yeatman, Pill & Smith. 2109 First Ave., Birmingham, Ala.

KENTUCKY

Good Kentucky farm for sale— about 75 acres on Dunmore and Huntsville Road. 4 foot vein of coal. Good site for a country coal mine, 3 miles to R.R. about 50 acres level land, rest rolling. Good buildings, good schools, churches. Close to telephone. Get mail on route. Price \$1600. A. A. Get mail on route. F Dearmond, Penrod, Ky.

PENNSYLVANIA

FOR SALE—Tract of land, either as farm, or factory site. Situated along railroad, convenient to stations, would make admirable factory or manufacturing site, or could be sub-divided into building lots. Excellent location, near to towns, fine elevation. Contains 150 acres, fine buildings. K. T. McDade, Box 38, Phoenixville, Pa.

SOUTH CAROLINA

Truck farms that pay dividends annually can be bought at reasonable prices here. Vegetables are shipped eight months in the year. Three and four crops are grown on the same land annually. Excellent climate and health. Plenty of labor; strikes unknown. Well organized association that sells all farm products. For particulars write. Lake Realty Company. Beaufort, S.C.

TEXAS

RICH black land farms; well drained; oil, fruit; nature's sanitarium; Gulf Coast; rain belt, hard road; free booklet. Charles Harper, Port Lavaca, Tex.

COLONIAL RIVER ESTATE—Rich farming land; historic brick mansion visited by many notable personages; built in 17th century upon terrace facing many miles of river. Grounds of great beauty. Mansion and out-buildings in perfect condition. Electric lights; modern plumbing and heating; finest artesian water. Convenient location. Fine roads. Rare antique furniture. Estate cheap at \$100.000. Can be bought for much less. Box 889, Richmond, Va.

Norfolk, Va.—164 acres on river and rail-road, \$550 per acre, City, farm, suburban and shore property. "Your friends in the land." Holland Bros., Arcade, Norfolk, Va.

WYOMING

13,019 acres, Platte Valley, Wyoming, for irrigation. Ideal Colonization project, price \$12.50 acre. A. M. Riedesel, Denver, Colorado.

BUSINESS OPPORTUNITIES

I SPECIALIZE in industrial, warehouse and business sites at and adjacent to Wash ington, D. C.
M. B. HARLOW.
Harlow Building, Clorado Building Alexandria, Va.

Washington, D. C.

Interest open in Marine Transportation and Commission Company. Business enough from South to earn \$300,000 Net Annually. 25% on capital invested. Alfred S. Perry, Perry Building, Fairfield, Conn.

WANTED—Wholesale Lumber man with established hardwood trade to furnish cap-ital to operate tract of 75 million feet virgin hardwood, mostly oak. On percentage bass, None but responsible parties need reply, Box 65, Webster Springs, W. Va.

Investor to trade in building cotton mill: 1762 acres for location; fifty thousand or more starter. Chas. Harper, Port Lavaca,

PLANT AND PROPERTY PROTECTION
WITH EFFICIENT SERVICE
For Steam and Electric Railways, Bus,
Steamship, Airplane and other Common Carriers, Public Utility Corporations, Bansers,
Lawyers and Individuals, Warehouse,
Mines, Mills and Amusement Parks, Merchants, Builders, Contractors, Civic, County
and State Authorities,
REGISTERED, BONDED AND LICENSED
CORRESPONDENTS.
(Male and Female) in the principal cities
of the United States,
CONSULTING ENGINEERS.
Power Plants, Water Works, Roads and
Wharves, Reports on Production, Efficiency
and Labor.

and Labor.

LABOR REPLACEMENT WITH THE BETTER TYPE OF WORKERS.

Production Craftsmen for Industrial and Transportation difficulties.

EXPERIENCED GUARDS FOR LAW AND CORDER

ORDER.
COMMERCIAL-RAILWAY & INDUSTRIAL
COMPANY
(C. R. & I. CO.)
General Offices 437-A Equitable Building.
Baltimore, Md.
H. KENT McCAY, J. P. GRAHAM.
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Organizing a \$500.000 company to build a cotton mill near Atlanta, Ga., water power development. Your dividends guaranteed by the by-laws. (The salaries of the officials of the company shall not exceed 25 per cent of the profits.) No bonds. An experienced mill man will have charge; he has made a neighboring mill pay 400%. Come in with me on the organization. Address No. 6062, care Manufacturers Record.

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We invite all who have an interest in the industrial development of the country to attend.

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August 24, 1922.

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The above mills, equipped for the manufacture of yarns, and having approximately 4200 and 2800 spin-dles, are located at Greenville, S. C., both having railway sidings and near paved roads.

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Guaranteed **MACHINERY EQUIPMENT**

AIR COMPRESSORS

AIR COMPRESSORS

1—Sullivan Straight Line Air Compressor, 24" steam cylinder, 26" low pressure air cylinder, 16% high pressure air cylinder, 30" stroke capacity 1850 cu. ft, per minute.

1—Laidlow-Dunn & Gordon Belt Driven Air Compressor, size 25" x 15" x 18", capacity 1750 cu. ft.

1—Chicago Pneumatic Single Stage Steam Driven Compressor, two cylinders, size 22" x 16"; capacity, 888 cu. ft.

1—Laidlow-Dunn & Gordon Belt Driven Air Compressors, size 19" x 12" x 16"; capacity, 888 cu. ft.

1—Laidlow-Dunn & Gordon Belt Driven Air Compressors, size 25" x 15" x 18"; capacity, 750 cu. ft.

1—Laidlow-Dunn & Gordon Belt Driven Air Compressors, size 25" x 15" x 18"; capacity, 750 cu. ft.

1—Laidlow-Dunn & Gordon Belt Driven Air Compressors, size 25" x 15" x 18"; capacity, 750 cu. ft.

1—Laidlow-Dunn & Gordon Belt Driven Air Compressor, size 25" two sizes, low pressure cylinder 18" x 12" bigh pressure cylinder 18" x 12" capacity 600 cu. ft.

1—Clayton Duplex Steam Driven Air Compressor duplex steam and two stage air cylinders, dial steam cylinder 10", low pressure air cylinder 16", high pressure air cylinder 10"; stroke 10"; capacity 425 cu. ft.

1—Chicago Pneumatic Go. ft. ft. 100 bbs. pressure cylinder, 8" high pressure cylinder, 8" stroke, 7" steam cylinders.

PUMPS

-16" x 8½" x 12" Duplex Steam.
-14" x 10¼" x 10" Duplex Steam.
-12" x 7" x 10" Duplex Steam.
-10" x 6" x 10" Duplex Steam.
-10" x 6" x 10" Duplex Steam.
-5" x 4" x 5" Duplex Steam.
-5" x 4" x 3½" x 5" Duplex Steam.
-4" x 2½" x 4" Duplex Steam.
-8" x 8" Duplex Steam.

Pump.

1-Kingsford Horizontal Centrifugal Water Pump.

24" suction, 24" discharge,

1-Platte Iron Works Horizontal Centrifugal
Water pump, 14" suction, 12" discharge,

1-Fulton Horizontal Centrifugal Water Pump

12" suction, 10" discharge,

BOILERS

1—B. & W., 284 H.P. Water Tube; 150 lbs. pres
1—Erie City, 250 H.P. Water Tube; 150 lbs. pres
1—Erie City, 250 H.P. Water Tube; 150 lbs. pres
2—66" x 20" Horizontal Tubular; 125 lbs. pressure.
2—66" x 20" Horizontal Tubular; 115 lbs. pressure.
1—72" x 16" Horizontal Tubular; 115 lbs. pressure.
1—100 H.P. Locomotive Fire Box 100 lbs. pressure.
1—50 H.P. Locomotive Fire Box; 90 lbs. pressure.
1—50 H.P. Internally Fired; 90 lbs. pressure.
1—30 Vertical; 110 lbs. pressure.
1—20 H.P. Vertical; 100 lbs. pressure.

ENGINES

-28" x 48" Hamilton Right Hand Corliss. -20" x 42" Ohlo Right Hand Corliss. -18" x 42" Allis Right Hand Corliss. -12" x 24" Bucksye Left Hand. -12" x 24" Douglas Plain Slide Valve. -10" x 12" Chandler Taylor Plain Slide Valve. 9" x 10" Armington & Simms Automatic.

TANKS

TANKS
6—Hot Water Feed Tanks, 48" dia., 10' long with one convex and one concave head, manhole in head, about 4," plate, a bout 64" dia., 5' 6" high, with dished heads, 46" plate, 2—Open Top Storage Tanks, 4' 9" wide, 4' 8" deep, 10' 6" long; 7/16" plate, 4' 9" wide, 5' deep, 10' 6" long; 7/16" plate, 2—Open Top Storage Tanks, 6' 9" wide, 5' deep. 10' 6" long; 7/16" plate, 2—Open Top Storage Tanks, 10' wide, 3' 3" deep 16' 3" long; 7/16" plate, 25—Complete Underground Gasoline Storage Outfits, consisting of 160 gal, galvanized tank, 14 gauge material, size 31x48 inches, with hand pump also pipe and fittings complete. 1/4 and 5/16 in. materials. 50—Government Black Steel Oil Storage Tanks, 100 gal, capacity, size 64 in. by 6 ft., 1/4 in. material.
10—Government Underground Black Steel Storage Tanks, 1000 gal, capacity, size 64 in. by 6 ft., 1/4 in. material.
10—Government Underground Black Steel Storage Tanks, 2000 gal, capacity, size 64 in. by 6 ft., 1/4 in. material.
10—Government Underground Black Steel Storage Tanks, 2000 gal, capacity, size 64 in. by 6 ft., 1/4 in. material.
10—Government Galvanies from 5500 to 30,000 gallons.
15—Brand New Government Galvaniesd Tanks, 18 in. wide, 18 in. long, 48 in. deep, fitted with hinged cover.

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1—200 KW, 720 RPM, 2300 V, 60 Cy, 2 Phase.
1—100 KW, 980 RPM, 2300 V, 60 Cy, 2 Phase.
1—30 KW, 110 V, D.C., Western Electric direct
connected to a 60 HP, vertical steam engine.
1—30 KW, 1050 RPM, 125 V, D.C., G.E. Belted,
1—20 KW, 1150 RPM, 125 V, D.C., F.M. Belted,
1—6 KW, 35 or 125 V, D.C., G.E., direct connected to Kerosene Engine. V. M. NUSSBAUM & CO. - FT. WAYNE, IND.

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2-200 K.V.A., 3 phase, 60 cycle, 2400 volt, West-inghouse revolving field type generators, direct connected to 2-18 x 20 Erie Ball, four valve engines. Can be reconnected to 220 volts.

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Unusually Fine Condition

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Drill Presses,

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Surface Grinders, P. & W. Vertical, Diamond Automatic, Cincinnati Universal (12" x 36"), Landis Universal.

Norton External Grinders.

Turret Lathes.

Warner & Swasey Nos. 2-A & 3-A.

Boring Lathes.

Springfield Gun, 56" x 24'.

High Speed Lathes,

Reed & Prentice.

Engine Lathes,

Lodge & Shipley 20" x 20'; Le Blond Heavy Duty, Chard, American and Put-

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Milling Machines, Gidding and Lewis Horizontal, Cincinnati Vertical Cone type, Cincinnati Universal, Becker Vertical, Ingersoll Double Head Vertical, Slab and Horizontal Spindle types.

Thread Milling Machines, Bradner.

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1	50	440	900	H	Fairbanks-Morse.
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1	150	2200	600	Q	Crocker-Wheeler.

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1-75 KW, 500 volts, D.C., Burke Generator to 115 H.P. 2200 volts, 3-phase, 60 cycle, Burke motor.

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12x16" Buckeye. 16x16" Phoenix. 16x16" McEwen. 16½x30" Buckeye. 24x42" Fulton Iron Works.

TANDEM COMPOUND BELTED ENGINES AS FOLLOWS
13 and 22½ x 30" Buckeye. 12 and 21 x 27" Buckeye.

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1-200 K.W., 250 volt, 200 R.P.M. General Electric Generator and Erico Ball Engine.

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1-100 K.V.A., 2300 volt, 60 cycle, 3 phase generator, direct connected to piston valve engine 257 R.P.M.

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1-12 and 20x24 Blake Single-cylinder Jet Condenser, brass fitted.

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1—No. 5 Emerson Steam Pump, Good as new, f. o. b. Spartanburg, S. C.

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2—Uright boilers complete with fittings 16 H.P.

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16 H.P.

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-8" 3 Stage Alberger-Curtis Steam Turbine driven boiler feed pumps.

-14" Worthington Class B Centrifugal Pumps, with 300 H.P. Motor. 2—10" Allis-Chalmers Type S Centrifugal Pumps, with 150 H.P. Motor.

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6—16" Allis-Chalmers Type S Centrifugal Pumps. with 300 H. P. Turbine.

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12" B. & K. (2) \$800.00 each
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STEEL STACK-5' 8" x 99'. Self-Supporting

13 Rings %,", 4 Rings 5/16", 4 Rings %," 5 Rings 3/16", with roof petitlooat, 65' indier and painting ring. Weight 28,600 lbs.

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Rods-100 tons 7/8" Round Rods, 14' to 22' lengths.

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35 STANDARD 250 H.P. BOILERS, 144 McGOWAN VERTICAL DUPLEX PUMPS, 102 EMERSON-BRANTINGHAM HOISTS,

11 6-K.W. GENERATOR SETS, 246 VERTICAL ENGINES

175 DEAN and EPPING PUMPS, 2 700 H.P. TRIPLE EXPANSION ENGINES, 12 2800 H.P. TRIPLE EXPANSION ENGINES.

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ON EXHIBITION FROM AUGUST 22nd to DATE OF SALE

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1-Erie 900 lb. steam No. 1458. 1-Bradley 200 lb. cushion helve No. 2918.

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3-75 K. W. 250-volt D. C. General Electric Generator, direct connected to Curtis turbine, 150 lbs. working pressure, complete with oiling system and switchboard.

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1—Patch straight side 5'x16' bed. 1—Patch straight or circular 6'x18' bed, 7' to 75' radius.

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10-19x8 Le Blond, double back geared quick change, belt driven.

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-139-ft. Air, Chicago, Belt driven. -350-ft. Air, Bury, steam driven. -1000-ft. Air, Sullivan, steam driven. -175-ft. Air, Ingersoll, steam driven. -190-ft. Air, American, steam driven.

1—1000-gal. Knowles Single.
1—750-gal. Worthington Duplex.
1—600-gal. Advance Duplex.
1—400-gal. Worthington Duplex.
0—Scranton. size 6x5%x6, new.
1—Hydraulic, Duplex Warren 8"x11/4"x10".

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1-Louisville Steam Dryer, size 6' x 25'.

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For Sale

One 5-ton and one 10-ton. Used only four months

Also six Lindsay 8-wheel wagons.

THE SUMPTER HARDWOOD CO. SUMPTER, S. C.

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i0—4 wheel Std. gauge flat care. 4—60 M Lbs. cap. steel underframe dump cinder cars.
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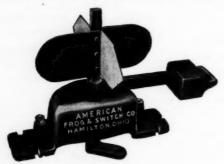
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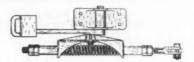
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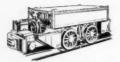


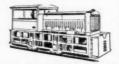
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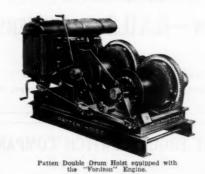




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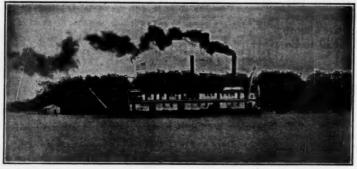
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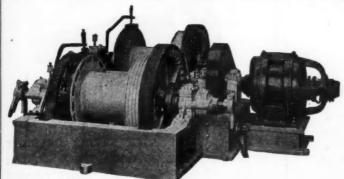


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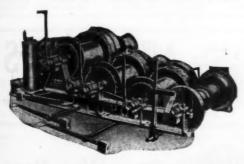
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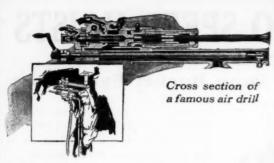
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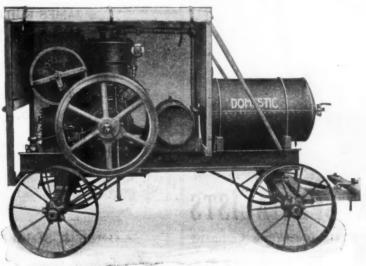
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PORTABLE AIR

COMPRESSORS

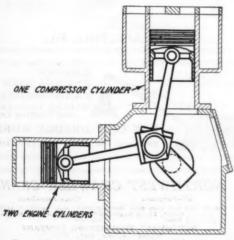
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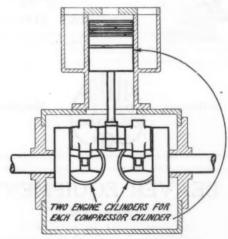


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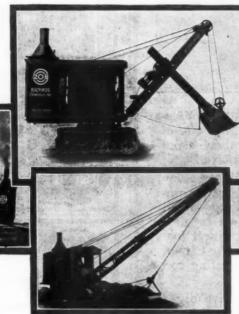
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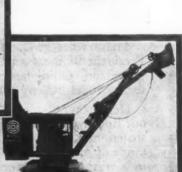
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THE BUCYRUS 20-B BULLSEYE

STANDARD

A New 3/4-Yard UNIVERSAL SHOVEL





HIGH LIFT

CLAMSHELL

DRAGLINE

EASILY CONVERTIBLE. The 20-B may be converted right on the job from a steam shovel to a dragline excavator, high lift shovel, sewer shovel, crane, clamshell excavator, etc. The fundamental design of this machine is such that the 20-B dragline is as good a dragline as if it were designed solely for this purpose. It is a real Universal Machine.

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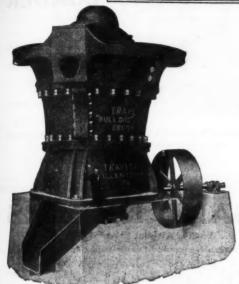
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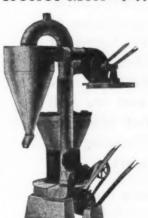
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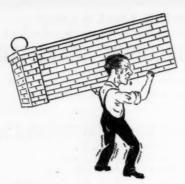
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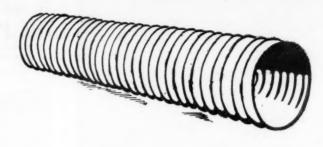
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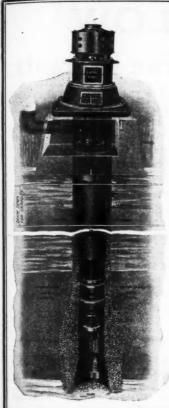
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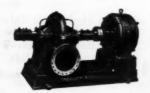
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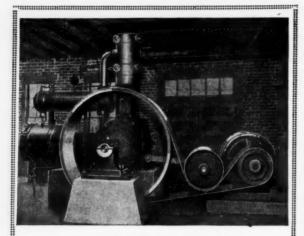
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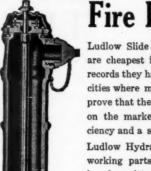
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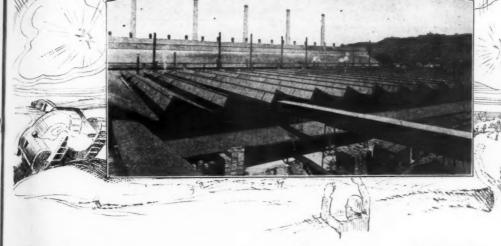
August 24, 1922.

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